



# **STIC Search Report**

**EIC 1700**

**STIC Database Tracking Number: 10288524**

**TO: Callie Shosho**

**Location:**

**Art Unit : 1714**

**September 4, 2003**

**Case Serial Number: 10/001347**

**From: Kathleen Fuller**

**Location: EIC 1700**

**CP3/4 3D62**

**Phone: 308-4290**

**Kathleen.Fuller@uspto.gov**

## **Search Notes**



# STIC Search Results Feedback Form

**EIC17000**

Questions about the scope or the results of the search? Contact *the EIC searcher* or contact:

Kathleen Fuller, EIC 1700 Team Leader  
308-4290, CP3/4-3D62

## Voluntary Results Feedback Form

- I am an examiner in Workgroup:  Example: 1713  
➤ Relevant prior art **found**, search results used as follows:

- ☐ 102 rejection
- ☐ 103 rejection
- ☐ Cited as being of interest.
- ☐ Helped examiner better understand the invention.
- ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature  
(journal articles, conference proceedings, new product announcements etc.)

- Relevant prior art **not found**:

- ☐ Results verified the lack of relevant prior art (helped determine patentability).
- ☐ Results were not useful in determining patentability or understanding the invention.

Comments:

Drop off or send completed forms to STIC/EIC1700 CP3/4 3D62



SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Callie Shioshio Examiner #: 0208 Date: 02/08  
Art Unit: 1714 Phone Number 305-6208 Serial Number: 101001347  
Mail Box and Bldg/Room Location: CP3-4101 Results Format Preferred (circle): PAPER DISK E-MAIL  
(mailbox)

If more than one search is submitted, please prioritize searches in order of need.

\*\*\*\*\*

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Novel Toner Compositions for Black Gravure Inks

Inventors (please provide full names): Rajnish Batlaw

Earliest Priority Filing Date: 10/26/01

\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

For claim 1, please find gravure (rotogravure) ink which contains polymeric colorant which exhibits maximum absorption<sup>max</sup> at 550-610nm. Colorant contains polyoxyalkylene chains - ethylene oxide or propylene oxide - Specification discloses two such colorants - one known under the trade name Violet X50 and the other referred to as "polymeric violet colorant, oxirane, methyl-polymer with oxirane, ether with (2,2'-(3-methyl-4-(2-amino-4-methyl-3,5-dicyanothiophene)azo-phenyl-imino-bisethanol"

For claims 23 & 27, please find ink comprising pigment and/or dye as well as toner component (equivalent to polymeric colorant) which has hue angle and ~~color~~ color characteristics ( $a^*$ ,  $b^*$ ) as set forth in the claims

STAFF USE ONLY measure the chroma

Searcher: A. Fuller  
Searcher Phone #: \_\_\_\_\_  
Searcher Location: \_\_\_\_\_  
Date Searcher Picked Up: \_\_\_\_\_  
Date Completed: 9/04/03  
Searcher Prep & Review Time: 30  
Clerical Prep Time: \_\_\_\_\_  
Online Time: 35

Type of Search

NA Sequence (#) \_\_\_\_\_  
AA Sequence (#) \_\_\_\_\_  
Structure (#) 2  
Bibliographic \_\_\_\_\_  
Litigation \_\_\_\_\_  
Fulltext \_\_\_\_\_  
Patent Family \_\_\_\_\_  
Other \_\_\_\_\_

Vendors and cost where applicable

STN ✓  
Dialog \_\_\_\_\_  
Questel/Orbit \_\_\_\_\_  
Dr. Link \_\_\_\_\_  
Lexis/Nexis \_\_\_\_\_  
Sequence Systems \_\_\_\_\_  
WWW/Internet \_\_\_\_\_  
Other (specify) \_\_\_\_\_

Thank you

BEST AVAILABLE COPY

=&gt; D QUE L44

L26 1 SEA FILE=REGISTRY ABB=ON 515857-23-5/BI  
 L27 375045 SEA FILE=REGISTRY ABB=ON 16.145/RID  
 L28 18356 SEA FILE=REGISTRY ABB=ON 75-56-9/CRN  
 L29 22522 SEA FILE=REGISTRY ABB=ON 75-21-8/CRN  
 L30 14494 SEA FILE=REGISTRY ABB=ON L28 AND L29  
 L31 29 SEA FILE=REGISTRY ABB=ON L30 AND L27  
 L35 2 SEA FILE=HCAPLUS ABB=ON L26  
 L36 10 SEA FILE=HCAPLUS ABB=ON L31  
 L42 2 SEA FILE=HCAPLUS ABB=ON (L35 OR L36) AND (TONER# OR INK#)  
 L43 0 SEA FILE=HCAPLUS ABB=ON (L35 OR L36) AND (HUE(3A)ANGLE? OR  
 BRIGHTNESS OR LIGHT(3A)ABSORP?)  
 L44 2 SEA FILE=HCAPLUS ABB=ON L42 OR L43

=&gt; D L44 ALL 1-2 HITSTR

L44 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2003:356497 HCAPLUS

DN 138:370279

 TI Novel **toner** compounds and compositions for black offset  
**inks**

IN Batlaw, Rajnish

PA Milliken &amp; Company, USA

SO PCT Int. Appl., 27 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM C08G018-72

ICS C08G018-50; C08G018-02; C09D011-10

CC 41-8 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)

Section cross-reference(s): 42, 74

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003037951	A1	20030508	WO 2002-US29398	20020916
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	US 2003110977	A1	20030619	US 2001-1351	20011026
	US 2003130375	A1	20030710	US 2001-999231	20011026
PRAI	US 2001-1351	A	20011026		
	US 2001-999231	A	20011026		

AB A novel colorant compd. is provided which is the addn. product of an org.  
 chromophore having at least one reactive hydroxyl or amine substituent, a  
 mono- or polyisocyanate, and/or an alc. Such a compd. provides soly. in  
 oil-based **ink** compns., complete water resistance and excellent  
 oil based **ink** compns. Furthermore, such colorants provide an  
 easy and efficient way to tone shades of oil based **inks**. In

addn., such colorants provide a way to tone carbon black based lithog. **inks** that gives the images a appearance of jet black on various types of printing substrates. Thus, 70 parts of a polymeric blue colorant [methylium, bis(4-aminophenyl)(4-aminophenyl)-, chloride, ethoxylated (.apprx.4-10 mol), propoxylated (.apprx.4-10 mol)], having a Color Value of 65, were charged to a 3-neck flask. Added to this formulation were 80 parts of octadecyl isocyanate and 1.5 parts of dibutyltin dilaurate (catalyst). The mixt. was then heated to 70-80.degree. for 2-6 h or until the reaction is complete. The absence (disappearance) of a peak at about 2275 cm-1 (NCO) and the appearance (or increase in magnitude) of peaks at about 1740-1680 cm-1 and about 1540-1530 cm-1 corresponding to urethane frequencies was used to confirm this.

ST black offset **ink toner** colorant urethane deriv polymer

IT Carbon black, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
(1K01967; manuf. of **toner** compds. and compns. for black offset **inks**)

IT **Inks**

(lithog.; manuf. of **toner** compds. and compns. for black offset **inks**)

IT Dyes

(manuf. of **toner** compds. and compns. for black offset **inks**)

IT Polyurethanes, preparation

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(polyoxyalkylene-, chromophore-based; manuf. of **toner** compds. and compns. for black offset **inks**)

IT Chromophores

(urethane compds.; manuf. of **toner** compds. and compns. for black offset **inks**)

IT 112-96-9DP, Octadecyl isocyanate, urethane compds. with OH or amine group-contg. dye compds. 4955-92-4DP, Tris(p-aminophenyl)carbonium chloride, reaction products with ethylene oxide-propylene oxide copolymer and isocyanates 9003-11-6DP, Ethylene oxide-propylene oxide copolymer, reaction products with tris(p-aminophenyl)carbonium chloride and isocyanates 58067-42-8DP, Tetramethylxylene diisocyanate, reaction products with ethoxylated propoxylated tris(p-aminophenyl)carbonium chloride and isocyanates **515857-23-5DP**, reaction products with monoisocyanates **521959-42-2P 521959-43-3P 521959-44-4P**

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(manuf. of **toner** compds. and compns. for black offset **inks**)

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Batlaw; US 5919846 A 1999 HCAPLUS
- (2) Harris; US 5973062 A 1999 HCAPLUS
- (3) Meinhardt; US 6329453 B1 2001 HCAPLUS
- (4) Stephens; US 6077927 A 2000 HCAPLUS

IT **515857-23-5DP**, reaction products with monoisocyanates

**521959-42-2P 521959-43-3P 521959-44-4P**

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(manuf. of **toner** compds. and compns. for black offset **inks**)

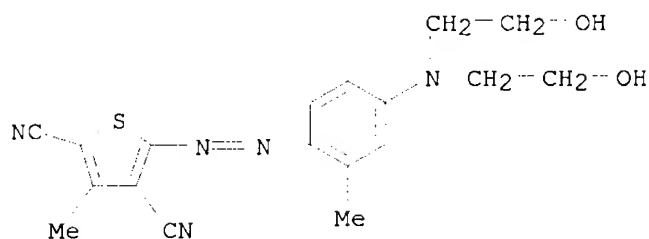
RN 515857-23-5 HCAPLUS

CN Oxirane, methyl-, polymer with oxirane, ether with 5-[[4-[bis(2-hydroxyethyl)amino]-2-methylphenyl]azo]-3-methyl-2,4-thiophenedicarbonitrile (2:1) (9CI) (CA INDEX NAME)

CM 1

CRN 96422-09-2

CMF C18 H19 N5 O2 S



CM 2

CRN 9003-11-6

CMF (C3 H6 O . C2 H4 O) x

CCI PMS

CM 3

CRN 75-56-9

CMF C3 H6 O



CH3

CM 4

CRN 75-21-8

CMF C2 H4 O

O

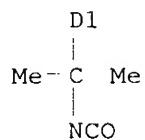
RN 521959-42-2 HCAPLUS

CN Oxirane, methyl-, polymer with oxirane, ether with 5-[[4-[bis(2-hydroxyethyl)amino]-2-methylphenyl]azo]-3-methyl-2,4-thiophenedicarbonitrile (2:1), polymer with bis(1-isocyanato-1-methylethyl)benzene (9CI) (CA INDEX NAME)

CM 1

CRN 58067-42-8

CMF C14 H16 N2 O2  
CCI IDS



CM 2

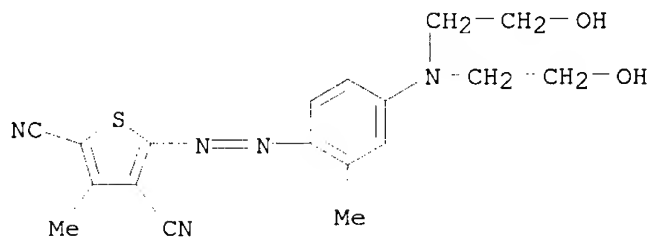
CRN 515857-23-5

CMF C18 H19 N5 O2 S . 2 (C3 H6 O . C2 H4 O) x

CM 3

CRN 96422-09-2

CMF C18 H19 N5 O2 S



CM 4

CRN 9003-11-6

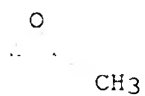
CMF (C3 H6 O . C2 H4 O) x

CCI PMS

CM 5

CRN 75-56-9

CMF C3 H6 O



CM 6

CRN 75-21-8

CMF C2 H4 O



RN 521959-43-3 HCAPLUS

CN Oxirane, methyl-, polymer with oxirane, ether with 5-[[4-[bis(2-hydroxyethyl)amino]-2-methylphenyl]azo]-3-methyl-2,4-thiophenedicarbonitrile (2:1), polymer with bis(1-isocyanato-1-methylethyl)benzene and 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane (9CI) (CA INDEX NAME)

CM 1

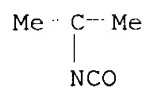
CRN 58067-42-8

CMF C14 H16 N2 O2

CCI IDS



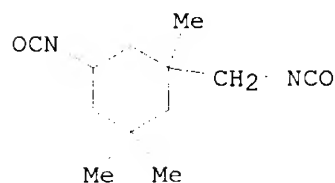
D1



CM 2

CRN 4098-71-9

CMF C12 H18 N2 O2



CM 3

CRN 515857-23-5

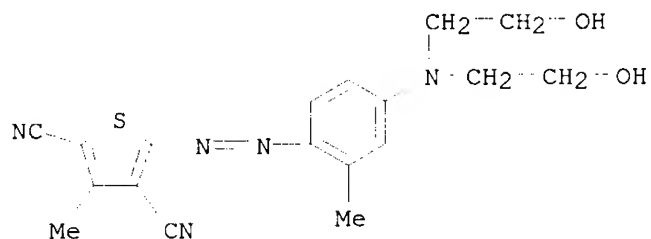


CMF C18 H19 N5 O2 S . 2 (C3 H6 O . C2 H4 O)x

CM 4

CRN 96422-09-2

CMF C18 H19 N5 O2 S



CM 5

CRN 9003-11-6

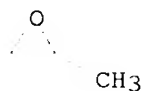
CMF (C3 H6 O . C2 H4 O)x

CCI PMS

CM 6

CRN 75-56-9

CMF C3 H6 O



CM 7

CRN 75-21-8

CMF C2 H4 O



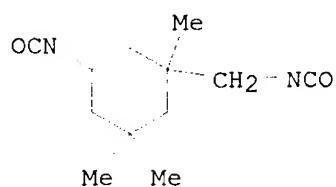
RN 521959-44-4 HCAPLUS

CN Oxirane, methyl-, polymer with oxirane, ether with 5-[[4-[bis(2-hydroxyethyl)amino]-2-methylphenyl]azo]-3-methyl-2,4-thiophenedicarbonitrile (2:1), polymer with 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane (9CI) (CA INDEX NAME)

CM 1

CRN 4098-71-9

CMF C12 H18 N2 O2



CM 2

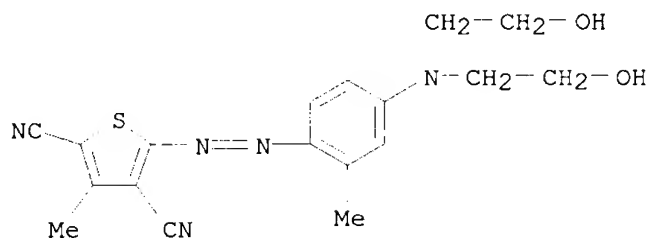
CRN 515857-23-5

CMF C18 H19 N5 O2 S . 2 (C3 H6 O . C2 H4 O) x

CM 3

CRN 96422-09-2

CMF C18 H19 N5 O2 S



CM 4

CRN 9003-11-6

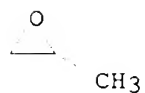
CMF (C3 H6 O . C2 H4 O) x

CCI PMS

CM 5

CRN 75-56-9

CMF C3 H6 O



CM 6

CRN 75-21-8

CMF C2 H4 O

O

L44 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2003 ACS on STN  
 AN 2003:334432 HCAPLUS  
 DN 138:339815  
 TI Novel **toner** compositions for black gravure **inks** for  
 textiles, polymeric films, and papers  
 IN Batlaw, Rajnish  
 PA USA  
 SO U.S. Pat. Appl. Publ., 6 pp.  
 CODEN: USXXCO  
 DT Patent  
 LA English  
 IC ICM B32B027-14  
 NCL 428195000  
 CC 42-12 (Coatings, Inks, and Related Products)  
 Section cross-reference(s): 40

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003082349	A1	20030501	US 2001-1347	20011026
PRAI	US 2001-1347		20011026		

AB A novel, easy, and efficient manner of toning shades of toluene-based gravure **inks** is provided, particularly through the incorporation of certain polymeric colorants therein the gravure **ink** formulations. In addn., such **toner** additives provide a toning capabilities of carbon black-based gravure **inks** that provides jetter black appearances with lower degrees of redness and bronzing on various types of printing substrates than other **toner** formulations of std. alkali blue types of toning additives. Such printed substrates and methods of printing utilizing such novel gravure **toner** additives are also encompassed within this invention. Thus, a toluene-based **ink** was prepd. by admixing polymeric violet colorant ethoxylated propoxylated 2,2'-(3-methyl-4-(2-amino-4-methyl-3,5-dicyanothiophene)azo-phenyl-imino)bisethanol 15 parts, coated vanish 280 parts, Black Conc. (carbon black) 120 parts, and toluene 285 parts.

ST **toner** compn black gravure **ink**

IT **Inks**  
 (gravure; prodn. of **toner** compns. for black gravure **inks** for textiles, polymeric films, and papers)

IT Coloring materials  
 (polymeric; prodn. of **toner** compns. for black gravure **inks** for textiles, polymeric films, and papers)

IT Polyoxyalkylenes, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (prodn. of **toner** compns. for black gravure **inks** for textiles, polymeric films, and papers)

IT Paper  
 Plastic films  
 Textiles  
 (substrate; prodn. of **toner** compns. for black gravure **inks** for textiles, polymeric films, and papers)

IT 515857-23-5  
 RL: TEM (Technical or engineered material use); USES (Uses)

(polymeric violet colorant; prodn. of **toner** compns. for black gravure **inks** for textiles, polymeric films, and papers)

IT **515857-23-5**

RL: TEM (Technical or engineered material use); USES (Uses)

(polymeric violet colorant; prodn. of **toner** compns. for black gravure **inks** for textiles, polymeric films, and papers)

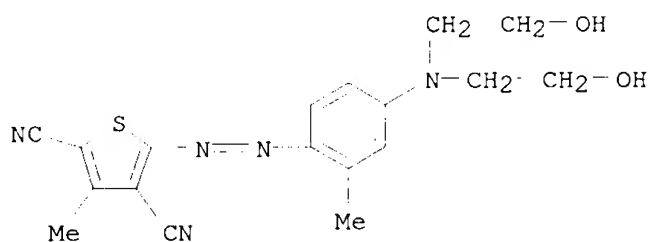
RN 515857-23-5 HCAPLUS

CN Oxirane, methyl-, polymer with oxirane, ether with 5-[[4-[bis(2-hydroxyethyl)amino]-2-methylphenyl]azo]-3-methyl-2,4-thiophenedicarbonitrile (2:1) (9CI) (CA INDEX NAME)

CM 1

CRN 96422-09-2

CMF C18 H19 N5 O2 S



CM 2

CRN 9003-11-6

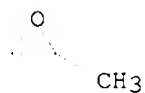
CMF (C3 H6 O . C2 H4 O) x

CCI PMS

CM 3

CRN 75-56-9

CMF C3 H6 O



CM 4

CRN 75-21-8

CMF C2 H4 O

O

=&gt; D QUE

L26 1 SEA FILE=REGISTRY ABB=ON 515857-23-5/BI  
 L27 375045 SEA FILE=REGISTRY ABB=ON 16.145/RID  
 L28 18356 SEA FILE=REGISTRY ABB=ON 75-56-9/CRN  
 L29 22522 SEA FILE=REGISTRY ABB=ON 75-21-8/CRN  
 L30 14494 SEA FILE=REGISTRY ABB=ON L28 AND L29  
 L31 29 SEA FILE=REGISTRY ABB=ON L30 AND L27  
 L35 2 SEA FILE=HCAPLUS ABB=ON L26  
 L36 10 SEA FILE=HCAPLUS ABB=ON L31  
 L42 2 SEA FILE=HCAPLUS ABB=ON (L35 OR L36) AND (TONER# OR INK#)  
 L43 0 SEA FILE=HCAPLUS ABB=ON (L35 OR L36) AND (HUE(3A)ANGLE? OR  
 BRIGHTNESS OR LIGHT(3A)ABSORP?)  
 L44 2 SEA FILE=HCAPLUS ABB=ON L42 OR L43  
 L46 347382 SEA FILE=REGISTRY ABB=ON 16.145.3/RID  
 L47 347382 SEA FILE=REGISTRY ABB=ON L46 OR L46  
 L49 177386 SEA FILE=REGISTRY RAN=(,247262-99-0) ABB=ON L46 OR L46  
 L50 169996 SEA FILE=REGISTRY ABB=ON L47 NOT L49  
 L51 27634 SEA FILE=HCAPLUS ABB=ON L30  
 L52 85504 SEA FILE=HCAPLUS ABB=ON L49  
 L53 9074 SEA FILE=HCAPLUS ABB=ON L50  
 L54 128 SEA FILE=HCAPLUS ABB=ON L51 AND (L52 OR L53)  
 L55 7 SEA FILE=HCAPLUS ABB=ON L54 AND INK#  
 L56 5 SEA FILE=HCAPLUS ABB=ON (L55 OR L44) NOT L44

=&gt; D L56 ALL 1-5 HITSTR

L56 ANSWER 1 OF 5 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2000:464546 HCAPLUS

DN 133:90837

 TI Water-thinned jet **ink** compositions for printing high quality  
 images on various papers

IN Malhotra, Shadi L.; Mayo, James D.; Breton, Marcel P.

PA Xerox Corp., USA

SO U.S., 18 pp.

CODEN: USXXAM

DT Patent

LA English

IC ICM C09D011-00

NCL 106031430

CC 42-12 (Coatings, Inks, and Related Products)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6086661	A	20000711	US 1999-300210	19990427
PRAI	US 1999-300210		19990427		

 AB An aq. **ink** compn. is comprised of (1) a dye fixing quaternary  
 compd. selected from (a) imidazolinium quaternary salts, (b) phosphonium  
 quaternary salts, and (c) an ammonium quaternary salt, (2) a liq.  
**ink** vehicle, (3) a paper-curl reducing compd., (4) a lightfastness  
 component, (5) a lightfastness antioxidant, (6) a substantially water-sol.  
 org. salt or a substantially water-sol. inorg. salt, (7) a biocide, and  
 (8) a colorant.

 ST acoustic jet printing aq **ink**; color printing jet **ink**;  
 dye fixative jet **ink**; quaternary salt fixative jet **ink**  
 ; waterfast lightfast jet printing **ink**

IT Quaternary ammonium compounds, uses

RL: TEM (Technical or engineered material use); USES (Uses)

- (dihydrogenated tallow alkyl; fast-drying **ink** compns. for printing high quality images on various papers)
- IT Quaternary ammonium compounds, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (ethyldimethylsoya alkyl, Et sulfates; fast-drying **ink** compns. for printing high quality images on various papers)
- IT Pigments, nonbiological  
 (fast-drying **ink** compns. for printing high quality images on various papers)
- IT Phosphonium compounds  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (fast-drying **ink** compns. for printing high quality images on various papers)
- IT Onium compounds  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (imidazolium compds., tallow; fast-drying **ink** compns. for printing high quality images on various papers)
- IT **Inks**  
 (jet-printing, water-thinned; fast-drying **ink** compns. for printing high quality images on various papers)
- IT Carbon black, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (pigment; fast-drying **ink** compns. for printing high quality images on various papers)
- IT 88-24-4, 2,2'-Methylenebis(6-tert-butyl-4-ethylphenol) 88-27-7,  
 2,6-Di-tert-butyl-.alpha.-dimethylamino-4-cresol 103-96-8 119-47-1,  
 2,2'-Methylenebis(6-tert-butyl-4-methylphenol) 3081-14-9 17629-30-0,  
 D-Raffinose pentahydrate 28600-84-2 33145-10-7, 2,2'-Isobutylidene-  
 bis(4,6-dimethyl phenol) 41539-22-4, N-(1,3-Dimethylbutyl)-N'-phenyl-  
 phenylene diamine 121246-28-4  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (antioxidant; fast-drying **ink** compns. for printing high quality images on various papers)
- IT 6317-18-6, Methylene bis(thiocyanate) 13590-97-1, Dodecyl guanidine  
 hydrochloride 21564-17-0, 2-(Thio cyanomethyl thio)benzothiazole  
 30388-01-3, 2-Hydroxypropylmethane thiosulfonate  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (biocide; fast-drying **ink** compns. for printing high quality images on various papers)
- IT 220107-67-5, Monaquat ISIES  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (dye fixative, Monaquat ISIES; fast-drying **ink** compns. for printing high quality images on various papers)
- IT 1100-88-5, Benzyl triphenyl phosphonium chloride 2001-45-8, Tetra phenyl  
 phosphonium chloride 3010-24-0 4762-26-9, Hexyl triphenyl phosphonium  
 bromide 14866-42-3, Stearyl tributyl phosphonium bromide 14937-45-2,  
 Hexadecyl tributyl phosphonium bromide 15510-55-1, Dodecyl triphenyl  
 phosphonium bromide 51812-80-7 54063-35-3 62705-16-2, Sanac C  
 67633-58-3, Schercoquat IIB 69891-92-5, 2-[(1,3-Dioxan-2-yl)ethyl]triphenyl  
 phosphonium bromide 70206-24-5 70340-04-4,  
 2-Hydroxybenzyl triphenyl phosphonium bromide 71067-22-6, Schercoquat  
 2IAP 82105-88-2, (4-Ethoxybenzyl)triphenyl phosphonium bromide 92888-3  
 7-4, Varisoft 222LT 132268-32-7, Tomah Q 17-2 146346-92-1,  
 4-Butoxybenzyl triphenyl phosphonium bromide 161069-06-3 282093-16-7,  
 Sanac S 282093-22-5, Schercoquat SOAS  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (dye fixative; fast-drying **ink** compns. for printing high quality images on various papers)

- IT 65816-20-8  
RL: TEM (Technical or engineered material use); USES (Uses)  
(lightfastness component, Givisorb UV 2; fast-drying **ink** compns. for printing high quality images on various papers)
- IT 25805-17-8, Poly(2-ethyl-2-oxazoline) 65447-77-0 90751-07-8  
196696-82-9  
RL: TEM (Technical or engineered material use); USES (Uses)  
(lightfastness component; fast-drying **ink** compns. for printing high quality images on various papers)
- IT 81-13-0, Pantothenol 544-62-7, 3-Octadecyloxy-1,2-propanediol  
1606-85-5, 1,4-Bis(2-hydroxy ethoxy)-2-butyne 4847-93-2,  
3-Piperidino-1,2-propanediol 6425-32-7, 3-Morpholino-1,2-propanediol  
17131-52-1, 3-(4-Methoxy phenoxy)-1,2-propanediol 28132-01-6,  
4-8-Bis(hydroxymethyl) tricyclo [5.2.1.02.6] decane 36936-60-4,  
Polyethylene glycol Triethanolamine ether **58205-99-5**  
85391-19-1, 3-Pyrrolidino-1,2-propanediol  
RL: TEM (Technical or engineered material use); USES (Uses)  
(paper curl reducing agent; fast-drying **ink** compns. for printing high quality images on various papers)
- IT 105-08-8, 1,4-Cyclohexanedimethanol 107-21-1, Ethylene glycol, uses  
108-32-7, Propylene carbonate 111-46-6, Di(ethylene glycol), uses  
111-48-8, 2,2'-Thiodiethanol 112-34-5, Di(ethylene glycol) butyl ether  
112-73-2, Diethylene glycol dibutyl ether 126-33-0, Tetramethylene  
sulfone **492-97-7**, 2,2'-Bithiophene 616-45-5, 2-Pyrrolidinone  
1125-99-1, 1-Pyrrolidino-1-cyclohexene 2580-77-0, 2,2'-Sulfonyldiethanol  
2687-94-7, 1-Octyl-2-pyrrolidinone 6837-24-7, 1-Cyclohexyl-2-  
pyrrolidinone 42032-30-4, 1-Decyl-2-methyl-imidazole  
RL: TEM (Technical or engineered material use); USES (Uses)  
(vehicle; fast-drying **ink** compns. for printing high quality images on various papers)
- IT 77-86-1, Tris(hydroxymethyl) aminomethane 919-16-4, Trilithium citrate  
1132-61-2, 4-Morpholinepropanesulfonic acid 2044-56-6, Lithium Dodecyl  
sulfate 5324-84-5, Sodium 1-octane sulfonate 7365-45-9,  
4-(2-Hydroxyethyl)-1-piperazine ethane sulfonic acid 7446-20-0, Zinc  
sulfate heptahydrate 7550-35-8, Lithium bromide 7647-14-5, Sodium  
chloride, uses 7681-11-0, Potassium iodide, uses 7758-02-3, Potassium  
bromide, uses 10025-70-4, Strontium chloride hexahydrate 10101-41-4,  
Calcium sulfate dihydrate 10191-18-1, N,N-Bis(2-hydroxyethyl)-2-amino  
ethane sulfonic acid 10196-18-6, Zinc nitrate hexahydrate 13446-18-9,  
Magnesium nitrate hexahydrate 13477-34-4, Calcium nitrate tetrahydrate  
68399-77-9 83081-75-8 145224-94-8  
RL: TEM (Technical or engineered material use); USES (Uses)  
(water-sol.; fast-drying **ink** compns. for printing high quality images on various papers)

RE.CNT 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Cooke; US 5041161 1991 HCAPLUS
- (2) El-Sayed; US 5382492 1995 HCAPLUS
- (3) Guiles; US 4791439 1988
- (4) Gundlach; US 6001899 1999 HCAPLUS
- (5) Hadimioglu; US 5111220 1992
- (6) Hadimoglu; US 5121141 1992
- (7) Itoh; US 5690721 1997 HCAPLUS
- (8) Koike; US 4853036 1989 HCAPLUS
- (9) Koike; US 5124718 1992 HCAPLUS
- (10) Lin; US 5531818 1996 HCAPLUS
- (11) Lu; US 3985663 1976 HCAPLUS
- (12) Malhotra; US 5709737 1998 HCAPLUS

- (13) Pearlstine; US 5518534 1996 HCAPLUS
- (14) Pontes; US 5700316 1997 HCAPLUS
- (15) Rezanka; US 5371531 1994
- (16) Sacripante; US 5667568 1997 HCAPLUS
- (17) Sacripante; US 5698017 1997 HCAPLUS
- (18) Sakai; US 5698128 1997
- (19) Schwarz; US 4840674 1989 HCAPLUS
- (20) Schwarz; US 5006170 1991 HCAPLUS
- (21) Schwarz; US 5122187 1992 HCAPLUS
- (22) Spehrley; US 4751528 1988
- (23) Taniguchi; US 5667572 1997 HCAPLUS
- (24) Vaught; US 4490731 1984
- (25) Vieira; US 5098477 1992 HCAPLUS

IT 58205-99-5

RL: TEM (Technical or engineered material use); USES (Uses)  
 (paper curl reducing agent; fast-drying **ink** compns. for  
 printing high quality images on various papers)

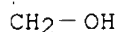
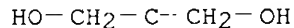
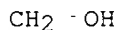
RN 58205-99-5 HCAPLUS

CN Oxirane, methyl-, polymer with oxirane, ether with 2,2-bis(hydroxymethyl)-  
 1,3-propanediol (4:1) (9CI) (CA INDEX NAME)

CM 1

CRN 115-77-5

CMF C5 H12 O4



CM 2

CRN 9003-11-6

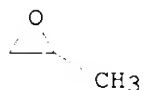
CMF (C3 H6 O . C2 H4 O) x

CCI PMS

CM 3

CRN 75-56-9

CMF C3 H6 O



CM 4

CRN 75-21-8

CMF C2 H4 O



O

IT **492-97-7**, 2,2'-Bithiophene  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (vehicle; fast-drying **ink** compns. for printing high quality  
 images on various papers)  
 RN 492-97-7 HCAPLUS  
 CN 2,2'-Bithiophene (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



L56 ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2003 ACS on STN  
 AN 1997:609683 HCAPLUS  
 DN 127:285874  
 TI Simulated photographic-quality prints using plasticizer to reduce curl  
 IN Malhotra, Shadi L.  
 PA Xerox Corp., USA  
 SO U.S., 20 pp.  
 CODEN: USXXAM  
 DT Patent  
 LA English  
 IC ICM G03G013-14  
 NCL 430097000  
 CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other  
 Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5665504	A	19970909	US 1996-584784	19960111
	JP 09281737	A2	19971031	JP 1997-1317	19970108
PRAI	US 1996-584784		19960111		

AB Simulated photog.-quality prints are created using nonphotog. imaging such as xerog. and **ink**-jet printing. Reverse or wrong reading toner images are formed on a transparent substrate which is adhered to a coated backing sheet. The backing sheet is coated with a polymer material which serves as an adhesive and has a glass transition temp. less than 55.degree.. A hydrophilic polymer coating having a m.p. greater than 50.degree. and a toner plasticizer having a m.p. less than 75.degree. contacting the adhesive polymer serves as a wetting agent for providing an enhanced optical interface as well as protection for the adhesive polymer which has a lower m.p. than the adhesive polymer.

ST simulated photog print plasticizer curl prevention

IT Polysulfones, uses  
 Polysulfones, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
 (polyether-; simulated photog.-quality prints contg.)

IT Polyethers, uses  
 Polyethers, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
 (polysulfone-; simulated photog.-quality prints contg.)

IT Cellophane  
(simulated photog.-quality prints contg.)

IT Aminoplasts  
Clays, uses  
Polycarbonates, uses  
Polyesters, uses  
Polyimides, uses  
Polyoxyalkylenes, uses  
Polysulfones, uses  
Rubber, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(simulated photog.-quality prints contg.)

IT Electrophotography  
Ink-jet printing  
Photography  
(simulated photog.-quality prints using plasticizers to reduce curl)

IT **88-15-3**, 2-Acetylthiophene 88-24-4, 2,2'-Methylenebis(6-tert-butyl-4-ethylphenol) 88-27-7 102-01-2, Acetoacetanilide 105-60-2, .epsilon.-Caprolactam, uses **110-02-1**, Thiophene 119-47-1, 2,2'-Methylenebis(6-tert-butyl-4-methylphenol) 123-28-4, Didodecyl 3,3'-thiodipropionate 128-53-0, N-Ethylmaleimide 142-26-7, N-Acetylethanolamine 350-03-8, 3-Acetylpyridine 471-34-1, Calcium carbonate, uses 517-23-7, 2-Acetylbutyrolactone 576-15-8, 1-Acetylinole 616-45-5, 2-Pyrrolidinone 673-66-5 675-20-7, .delta.-Valerolactam 693-36-7, Dioctadecyl 3,3'-thiodipropionate 874-23-7, 2-Acetylcyclohexanone 930-21-2, 2-Azetidinone 932-16-1, 2-Acetyl-1-methylpyrrole 932-62-7, 3-Acetyl-1-methylpyrrole 932-66-1, 1-Acetyl-1-cyclohexene 1001-53-2, N-Acetylenehydrazine 1068-57-1, Acetic hydrazide 1071-73-4, 3-Acetyl-1-propanol 1121-07-9, N-Methylsuccinimide 1122-54-9, 4-Acetylpyridine 1122-62-9, 2-Acetylpyridine 1123-19-9 1190-73-4, N-Acetylcysteamine 1314-13-2, Zinc oxide, uses 1314-23-4, Zirconium oxide, uses 1314-98-3, Zinc sulfide, uses 1333-52-4, Acetonaphthone 1344-28-1D, Alumina, hydrated 1432-43-5, 3-Acetyl-2-oxazolidinone 1443-80-7, 4-Acetylbenzonitrile 1497-19-4, .alpha.-Methyl-.alpha.-propylsuccinimide 1696-20-4, 4-Acetylmorpholine 1709-70-2, 1,3,5-Trimethyl-2,4,6-tris(3,5-di-tert-butyl-4-hydroxybenzyl)benzene 1843-05-6 1888-91-1, N-Acetylcaprolactam 2235-00-9, N-Vinylcaprolactam **2530-10-1**, 3-Acetyl-2,5-dimethylthiophene 2556-73-2, N-Methylcaprolactam 2628-16-2, 4-Acetoxyethylene 2973-09-3, N-Butylmaleimide 3128-06-1, 4-Acetylbutyric acid 3168-90-9, 1-Acetyl-2-methyl-1-cyclopentene 4173-74-4 4593-16-2, 1-Acetyl-3-methylpiperidine 5022-29-7, N-Ethylphthalimide 5323-50-2, N-Propylphthalimide 5460-29-7, N-(3-Bromopropyl)phthalimide 5977-14-0, Acetoacetamide 6090-09-1, 4-Acetyl-1-methylcyclohexene **6310-09-4**, 2-Acetyl-5-chlorothiophene 7631-86-9, Silica, uses 7727-43-7, Barium sulfate 7789-75-5, Calcium fluoride, uses 9002-86-2, Poly(vinyl chloride) 9002-88-4, Polyethylene 9003-07-0, Polypropylene 9003-08-1, Formaldehyde-melamine copolymer 9003-09-2, Poly(vinyl methyl ether) **9003-11-6**, Ethylene oxide-propylene oxide copolymer 9003-17-2, Polybutadiene 9003-18-3, Acrylonitrile-butadiene copolymer 9003-20-7, Vinyl acetate homopolymer 9003-21-8, Poly(methyl acrylate) 9003-27-4, Poly(isobutylene) 9003-28-5, Poly(1-butene) 9003-31-0, Polyisoprene 9003-32-1, Poly(ethyl acrylate) 9003-44-5, Poly(isobutyl vinyl ether) 9003-49-0, Poly(butyl acrylate) 9003-53-6, Polystyrene 9003-55-8, Butadiene-styrene copolymer 9003-56-9, Acrylonitrile-butadiene-styrene copolymer 9003-63-8, Poly(butyl methacrylate) 9003-77-4, Poly(2-ethylhexyl acrylate) 9003-95-6, Poly(vinyl stearate) 9004-57-3,

Ethylcellulose 9006-26-2, Ethylene-maleic anhydride copolymer  
 9010-79-1, Ethylene-propylene copolymer 9010-85-9, Isobutylene-isoprene  
 copolymer 9010-86-0, Ethylene-ethyl acrylate copolymer 9010-98-4,  
 Polychloroprene 9011-05-6, Urea-formaldehyde copolymer 9011-16-9,  
 Maleic anhydride-vinyl methyl ether copolymer 9011-53-4, Butyl  
 methacrylate-isobutyl methacrylate copolymer 9012-09-3, Cellulose  
 triacetate 9020-32-0, Poly(ethylene naphthalate) 9020-73-9  
 9036-63-9, Poly(isooctyl acrylate) 10101-39-0 10595-72-9, Ditridecyl  
 3,3'-thiodipropionate 13463-67-7, Titanium dioxide, uses 13889-98-0,  
 1-Acetyl piperazine 16432-81-8 16545-54-3 16713-80-7 17216-08-9,  
 2-Acetyl-1-tetralone 24936-97-8, Poly(1,4-butylene adipate)  
 24937-05-1, Poly(ethylene adipate) 24937-78-8, Ethylene-vinyl acetate  
 copolymer 24938-37-2, Poly(ethylene adipate) 24969-10-6,  
 Epichlorohydrin-ethylene oxide copolymer 24979-82-6, Poly(propyl  
 acrylate) 24981-14-4, Poly(vinyl fluoride) 25035-78-3, Poly(diallyl  
 isophthalate) 25035-84-1, Poly(vinyl propionate) 25036-21-9,  
 Poly(benzyl acrylate) 25037-78-9, Ethylene-vinyl chloride copolymer  
 25053-15-0, Poly(diallyl phthalate) 25087-17-6, Poly(hexyl methacrylate)  
 25103-87-1, Poly(1,4-butylene adipate) 25153-40-6, Maleic acid-vinyl  
 methyl ether copolymer 25232-27-3, Poly(tert-butyl acrylate)  
 25249-16-5, Poly(2-hydroxyethyl methacrylate) 25266-02-8, Maleic  
 anhydride-1-octadecene copolymer 25266-13-1, Poly(octyl acrylate)  
 25322-68-3, Poly(ethylene oxide) 25569-53-3, Poly(ethylene succinate)  
 25609-74-9, Poly(propyl methacrylate) 25639-21-8, Poly(octadecyl  
 methacrylate) 25667-11-2, Poly(ethylene succinate) 25719-51-1,  
 Poly(2-ethylhexyl methacrylate) 25719-52-2, Poly(lauryl methacrylate)  
 25805-17-8, Poly(2-ethyl-2-oxazoline) 25986-77-0, Poly(octadecyl  
 acrylate) 26022-14-0, Poly(2-hydroxyethyl acrylate) 26124-32-3,  
 Poly(isopropyl acrylate) 26246-92-4, Poly(lauryl acrylate) 26715-88-8,  
 Poly(vinyl pivalate) 26716-20-1, tert-Butylaminoethyl methacrylate  
 homopolymer 26760-99-6, Poly(ethylene azelate) 26762-07-2,  
 Poly(ethylene azelate) 27103-47-5, Poly(hexyl acrylate) 27458-65-7,  
 Poly(cyclohexyl acrylate) 27516-89-8 28158-21-6, Poly(trimethylene  
 succinate) 28265-35-2, Butadiene-maleic acid copolymer 28628-64-0,  
 Poly(2-methoxyethyl acrylate) 28725-67-9, Poly(trimethylene succinate)  
 28725-68-0 29320-53-4, Poly(decyl methacrylate) 29500-86-5, Poly(decyl  
 acrylate) 29963-76-6, Poly[2-(4-benzoyl-3-hydroxyphenoxy)ethyl acrylate]  
 32161-06-1, 1-Acetyl-4-piperidone 33512-26-4, Diethyl  
 (phthalimidomethyl) phosphonate 36221-42-8, Poly(trimethylene adipate)  
 36568-42-0, Poly(trimethylene adipate) 37200-12-7, Poly(isodecyl  
 methacrylate) 38205-60-6, 5-Acetyl-2,4-dimethylthiazole 40601-76-1  
 49805-30-3, (.+.-)-2-Azabicyclo[2.2.1]hept-5-en-3-one 52234-59-0,  
 Poly(trimethylene glutarate) 52256-48-1, Poly(trimethylene glutarate)  
 54771-60-7 54841-40-6, Poly(isodecyl acrylate) 62501-03-5,  
 Poly(hydroxypropyl acrylate) 66987-22-2, Poly(vinyl neodecanoate)  
 67845-93-6, Hexadecyl 3,5-di-tert-butyl-4-hydroxybenzoate 72779-48-7,  
 Hydroxyethylcellulose methacrylate 78902-09-7, Phthalimidoacetaldehyde  
 diethylacetal 79720-19-7 82451-48-7, N,N-Bis(2,2,6,6-tetramethyl-4-  
 piperidinyl)-1,6-hexanediamine-2,4-dichloro-6-morpholino-1,3,5-triazine  
 copolymer 106917-30-0 106917-31-1 111483-45-5, Hydroxyethylcellulose  
 acrylate 122269-49-2, Ethylene oxide-isoprene block copolymer  
 145332-37-2, Ethylene oxide-2-hydroxyethyl methacrylate block copolymer  
 196696-82-9 196696-83-0, Ethylene oxide-2-hydroxypropyl methacrylate  
 block copolymer 196696-84-1, Ethylene oxide-ionene block copolymer  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (simulated photog.-quality prints contg.)

IT 88-15-3, 2-Acetylthiophene 110-02-1, Thiophene  
 2530-10-1, 3-Acetyl-2,5-dimethylthiophene 6310-09-4,

2-Acetyl-5-chlorothiophene **9003-11-6**, Ethylene oxide-propylene  
oxide copolymer

RL: TEM (Technical or engineered material use); USES (Uses)  
(simulated photog.-quality prints contg.)

RN 88-15-3 HCAPLUS

CN Ethanone, 1-(2-thienyl)- (9CI) (CA INDEX NAME)



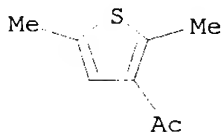
RN 110-02-1 HCAPLUS

CN Thiophene (8CI, 9CI) (CA INDEX NAME)



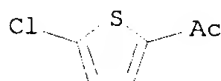
RN 2530-10-1 HCAPLUS

CN Ethanone, 1-(2,5-dimethyl-3-thienyl)- (9CI) (CA INDEX NAME)



RN 6310-09-4 HCAPLUS

CN Ethanone, 1-(5-chloro-2-thienyl)- (9CI) (CA INDEX NAME)



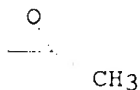
RN 9003-11-6 HCAPLUS

CN Oxirane, methyl-, polymer with oxirane (9CI) (CA INDEX NAME)

CM 1

CRN 75-56-9

CMF C3 H6 O



CM 2

CRN 75-21-8  
CMF C2 H4 O

O

L56 ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2003 ACS on STN  
AN 1992:135528 HCAPLUS  
DN 116:135528  
TI Performance-oriented packaging standards; changes to classification,  
hazard communication, packaging and handling requirements based on UN  
standards and agency initiative  
CS United States Dept. of Transportation, Washington, DC, 20590-0001, USA  
SO Federal Register (1990), 55(246), 52402-729, 21 Dec 1990  
CODEN: FEREAC; ISSN: 0097-6326  
DT Journal  
LA English  
CC 59-6 (Air Pollution and Industrial Hygiene)  
AB The hazardous materials regulations under the Federal Hazardous Materials  
Transportation Act are revised based on the United Nations recommendations  
on the transport of dangerous goods. The regulations cover the  
classification of materials, packaging requirements, and package marking,  
labeling, and shipping documentation, as well as transportation modes and  
handling, and incident reporting. Performance-oriented stds. are adopted  
for packaging for bulk and nonbulk transportation, and SI units of  
measurement generally replace US customary units. Hazardous material  
descriptions and proper shipping names are tabulated together with hazard  
class, identification nos., packing group, label required, special  
provisions, packaging authorizations, quantity limitations, and vessel  
stowage requirements.  
ST hazardous chem transport packaging  
IT Infection  
(agents, packaging and transport of, stds. for)  
IT Resin acids and Rosin acids  
RL: USES (Uses)  
(aluminum salts, packaging and transport of, stds. for)  
IT Alkaline earth metals  
RL: USES (Uses)  
(amalgams, packaging and transport of, stds. for)  
IT Alkali metals, miscellaneous  
RL: MSC (Miscellaneous)  
(amalgams, packaging and transport of, stds. for)  
IT Dyes  
(coal tar, packaging and transport of, stds. for)  
IT Packaging materials  
(for hazardous material transport, stds. for)  
IT Standards, legal and permissive  
(for hazardous material transportation)  
IT Bromates  
Chlorites  
RL: USES (Uses)  
(inorg., packaging and transport of, stds. for)  
IT Appliances  
(life-saving, packaging and transport of, stds. for)

IT Borates  
 RL: USES (Uses)  
 (mixts. contg. chlorates, packaging and transport of, stds. for)

IT Chlorates  
 RL: USES (Uses)  
 (mixts. contg., packaging and transport of, stds. for)

IT Diazonium compounds  
 RL: USES (Uses)  
 (nitrates, packaging and transport of, stds. for)

IT Paper  
 (oiled, packaging and transport of, stds. for)

IT Adhesives  
 Alcoholic beverages  
 Ammunition  
 Antifreeze substances  
 Bactericides, Disinfectants, and Antiseptics  
 Batteries, primary  
 Blasting gelatin  
 Bombs (explosives)  
 Carbon paper  
 Cartridges  
 Castor bean  
 Coating materials  
 Corrosive substances  
 Cotton  
 Creosote  
 Detonators  
 Dyes  
 Dynamite  
 Electric fuses  
 Exothermic materials  
 Explosives  
 Flavoring materials  
 Flue dust  
 Fuel cells  
 Fuel oil  
 Fuels, diesel  
 Fuels, jet aircraft  
 Fusel oil  
 Fuses, explosives  
 Gas oils  
 Hay  
 Herbicides  
 Igniters and Lighters  
 Insecticides  
 Lacrimators  
 Magnetic substances  
 Matches  
 Oxidizing agents  
 Perfumes  
 Pesticides  
 Petroleum products  
 Pharmaceuticals  
 Photoelectric devices  
 Poisons  
 Primers, explosive  
 Projectiles  
 Pyrophoric substances

Pyrotechnic compositions  
Radioactive substances  
Refrigerating apparatus  
Rockets  
Shale oils  
Solvent naphtha  
Sprays  
Straw  
Textiles  
Thermoelectric devices  
Torpedoes (weapons)  
Turpentine  
Wood preservatives  
(packaging and transport of, stds. for)

IT Alcohols, miscellaneous  
Aldehydes, miscellaneous  
Alkali metal alloys, base  
Alkali metals, miscellaneous  
Alkaline earth alloys, base  
Alkaline earth metals  
Alkaloids, miscellaneous  
Amines, miscellaneous  
Arsenates  
Arsenites  
Asbestos  
Asphalt  
Bases, miscellaneous  
Charcoal  
Coal  
Coke  
Cyanates  
Cyanides, miscellaneous  
Fibers  
Fluorides, miscellaneous  
Gasoline  
Helium-group gases, miscellaneous  
Hydrides  
Hypochlorites  
Kerosine  
Ketones, uses  
Ligroine  
Metals, miscellaneous  
Naphtha  
Natural gas  
Natural gas condensates  
Nitrates, miscellaneous  
Nitrites  
Perchlorates  
Permanganates  
Peroxides, uses  
Petroleum  
Petroleum gases, liquefied  
Polyamines  
Polyesters, miscellaneous  
Rosin oil  
Selenates  
Selenites  
Sulfonic acids, miscellaneous

Tar  
 Terpenes and Terpenoids, miscellaneous  
 Thiols, uses  
 RL: ADV (Adverse effect, including toxicity); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process)  
 (packaging and transport of, stds. for)

IT Refrigeration  
 (agents, packaging and transport of, stds. for)

IT Sulfonic acids, miscellaneous  
 RL: ADV (Adverse effect, including toxicity); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process)  
 (alkane, packaging and transport of, stds. for)

IT Phenols, miscellaneous  
 RL: ADV (Adverse effect, including toxicity); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process)  
 (alkyl, packaging and transport of, stds. for)

IT Alkali metals, compounds  
 RL: ADV (Adverse effect, including toxicity); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process)  
 (amides, packaging and transport of, stds. for)

IT Fertilizers  
 RL: ADV (Adverse effect, including toxicity); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process)  
 (ammonium nitrate, packaging and transport of, stds. for)

IT Gasoline additives  
 (antiknock, packaging and transport of, stds. for)

IT Sulfonic acids, miscellaneous  
 RL: ADV (Adverse effect, including toxicity); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process)  
 (arene, packaging and transport of, stds. for)

IT Nitro compounds  
 RL: USES (Uses)  
 (aryl, potassium salts, packaging and transport of, stds. for)

IT Nitro compounds  
 RL: USES (Uses)  
 (aryl, sodium salts, packaging and transport of, stds. for)

IT Fuels  
 (aviation, packaging and transport of, stds. for)

IT Propellants  
 (black powder, packaging and transport of, stds. for)

IT Hydraulic fluids  
 (brake, packaging and transport of, stds. for)

IT Flours and Meals  
 (cakes, packaging and transport of, stds. for)

IT Resin acids and Rosin acids  
 RL: ADV (Adverse effect, including toxicity); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process)  
 (calcium salts, packaging and transport of, stds. for)

IT Essential oils  
 RL: ADV (Adverse effect, including toxicity); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process)  
 (camphor, packaging and transport of, stds. for)

IT Silanes  
 RL: ADV (Adverse effect, including toxicity); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process)  
 (chloro, packaging and transport of, stds. for)

IT Solvents  
 (cleaning, packaging and transport of, stds. for)



IT Tar  
RL: ADV (Adverse effect, including toxicity); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process)  
(coal, packaging and transport of, stds. for)

IT Fuel gases  
(coal gas, packaging and transport of, stds. for)

IT Naphthenic acids, compounds  
Resin acids and Rosin acids  
RL: ADV (Adverse effect, including toxicity); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process)  
(cobalt salts, packaging and transport of, stds. for)

IT Coconut  
(copra, packaging and transport of, stds. for)

IT Petroleum products  
(distillates, packaging and transport of, stds. for)

IT Rockets  
(engines, packaging and transport of, stds. for)

IT Fire  
(extinguishers, packaging and transport of, stds. for)

IT Pyrotechnic compositions  
(fireworks, packaging and transport of, stds. for)

IT Pyrotechnic compositions  
(flare, packaging and transport of, stds. for)

IT Silicates, miscellaneous  
RL: ADV (Adverse effect, including toxicity); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process)  
(fluoro-, packaging and transport of, stds. for)

IT Gasoline  
RL: ADV (Adverse effect, including toxicity); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process)  
(gasohol, packaging and transport of, stds. for)

IT Ammunition  
(grenades, packaging and transport of, stds. for)

IT Asbestos  
RL: ADV (Adverse effect, including toxicity); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process)  
(grunerite, packaging and transport of, stds. for)

IT Sulfites  
RL: ADV (Adverse effect, including toxicity); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process)  
(hydrogen, packaging and transport of, stds. for)

IT Organic compounds, miscellaneous  
RL: ADV (Adverse effect, including toxicity); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process)  
(iodyl, packaging and transport of, stds. for)

IT Group VIII elements  
RL: ADV (Adverse effect, including toxicity); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process)  
(iron-group, packaging and transport of, stds. for)

IT Air  
Corrosive substances  
(liq., packaging and transport of, stds. for)

IT Gases  
(liquefied, packaging and transport of, stds. for)

IT Resin acids and Rosin acids  
RL: ADV (Adverse effect, including toxicity); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process)  
(manganese salts, packaging and transport of, stds. for)

IT Castor bean  
Fish  
(meal, packaging and transport of, stds. for)

IT Organometallic compounds  
RL: ADV (Adverse effect, including toxicity); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process)  
(metal alkyls, packaging and transport of, stds. for)

IT Explosives  
(mines, packaging and transport of, stds. for)

IT Carbohydrates and Sugars, miscellaneous  
RL: ADV (Adverse effect, including toxicity); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process)  
(nitro, packaging and transport of, stds. for)

IT Aromatic compounds  
RL: USES (Uses)  
(nitro, potassium salts, packaging and transport of, stds. for)

IT Aromatic compounds  
RL: USES (Uses)  
(nitro, sodium salts, packaging and transport of, stds. for)

IT Fertilizers  
RL: ADV (Adverse effect, including toxicity); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process)  
(nitrogen, packaging and transport of, stds. for)

IT Peroxides, miscellaneous  
RL: ADV (Adverse effect, including toxicity); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process)  
(org., packaging and transport of, stds. for)

IT Coating materials  
(paints, packaging and transport of, stds. for)

IT Essential oils  
RL: ADV (Adverse effect, including toxicity); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process)  
(pine, packaging and transport of, stds. for)

IT **Inks**  
(printing, packaging and transport of, stds. for)

IT Matches  
(safety, packaging and transport of, stds. for)

IT Alkaloids, compounds  
RL: ADV (Adverse effect, including toxicity); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process)  
(salts, packaging and transport of, stds. for)

IT Containers  
(shipping, for hazardous material transport, stds. for)

IT Pyrotechnic compositions  
(signal rockets, packaging and transport of, stds. for)

IT Pyrotechnic compositions  
(smoke-generating, packaging and transport of, stds. for)

IT Propellants  
(smokeless, packaging and transport of, stds. for)

IT Pharmaceutical dosage forms  
(tinctures, packaging and transport of, stds. for)

IT Ammunition  
Pyrotechnic compositions  
(tracers, packaging and transport of, stds. for)

IT Resin acids and Rosin acids  
RL: ADV (Adverse effect, including toxicity); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process)  
(zinc salts, packaging and transport of, stds. for)

IT 64-17-5

RL: OCCU (Occurrence)

(alcoholic beverages, packaging and transport of, stds. for)

IT 50-00-0, Formaldehyde, miscellaneous 54-11-5, Nicotine 54-11-5D, Nicotine, compds. 55-63-0, Nitroglycerin 55-68-5, Phenylmercuric nitrate 56-18-8, 3,3'-Iminodipropylamine 56-23-5, miscellaneous 56-38-2, Parathion 57-06-7, Allyl isothiocyanate 57-14-7 57-24-9D, Strychnine, salts 60-00-4, EDTA, miscellaneous 60-24-2 60-29-7, Diethyl ether, miscellaneous 60-34-4, Methylhydrazine 60-57-1, Dieldrin 62-38-4, Phenylmercuric acetate 62-53-3, Aniline, miscellaneous 62-74-8, Sodium fluoroacetate 64-17-5, Ethanol, miscellaneous 64-18-6, Formic acid, miscellaneous 64-18-6D, Formic acid, chloro derivs. 64-19-7, Acetic acid, miscellaneous 64-67-5, Diethyl sulfate 66-25-1, Hexaldehyde 67-56-1, Methanol, miscellaneous 67-63-0, Isopropanol, miscellaneous 67-64-1, Acetone, miscellaneous 67-66-3, Chloroform, miscellaneous 68-11-1, Thioglycolic acid, miscellaneous 68-12-2, N,N-Dimethylformamide, miscellaneous 70-11-1, Phenacyl bromide 70-30-4, Hexachlorophene 71-23-8, n-Propanol, miscellaneous 71-41-0, 1-Pentanol, miscellaneous 71-43-2, Benzene, miscellaneous 71-55-6, 1,1,1-Trichloroethane 74-82-8, Methane, miscellaneous 74-83-9, miscellaneous 74-84-0, Ethane, miscellaneous 74-85-1, Ethylene, miscellaneous 74-86-2, Acetylene, miscellaneous 74-87-3, Methyl chloride, miscellaneous 74-88-4, Methyl iodide, miscellaneous 74-89-5, Methylamine, miscellaneous 74-90-8, Hydrogen cyanide, miscellaneous 74-93-1, Methyl mercaptan, miscellaneous 74-95-3, Dibromomethane 74-96-4, Ethyl bromide 74-97-5, Bromochloromethane 74-98-6, Propane, miscellaneous 75-00-3, Ethyl chloride 75-01-4, miscellaneous 75-02-5, Vinyl fluoride 75-04-7, Ethylamine, miscellaneous 75-05-8, Methyl cyanide, miscellaneous 75-07-0, Acetaldehyde, miscellaneous 75-08-1, Ethyl mercaptan 75-09-2, Dichloromethane, miscellaneous 75-15-0, Carbon disulfide, miscellaneous 75-16-1, Methyl magnesium bromide 75-18-3, Dimethyl sulfide 75-19-4, Cyclopropane 75-20-7, Calcium carbide 75-21-8 75-21-8, Ethylene oxide, miscellaneous 75-25-2, Bromoform 75-26-3, 2-Bromopropane 75-28-5, Isobutane 75-28-5D, Isobutane, mixts. 75-29-6, 2-Chloropropane 75-31-0, Isopropylamine, miscellaneous 75-33-2, Isopropyl mercaptan 75-34-3, 1,1-Dichloroethane 75-35-4, miscellaneous 75-36-5, Acetyl chloride 75-38-7, 1,1-Difluoroethylene 75-39-8, Acetaldehyde ammonia 75-43-4, Dichloromonofluoromethane 75-44-5, Phosgene 75-45-6, Chlorodifluoromethane 75-46-7, Trifluoromethane 75-50-3, Trimethylamine, miscellaneous 75-52-5, Nitromethane, miscellaneous 75-54-7, Methylchlorosilane 75-55-8, Propylenimine 75-56-9, Propylene oxide, miscellaneous 75-59-2, Tetramethylammonium hydroxide 75-60-5, Cacodylic acid 75-61-6, Dibromodifluoromethane 75-63-8 75-71-8, Dichlorodifluoromethane 75-72-9, Chlorotrifluoromethane 75-73-0, Tetrafluoromethane 75-76-3, Tetramethylsilane 75-77-4, Trimethylchlorosilane, miscellaneous 75-78-5, Dimethyldichlorosilane 75-79-6, Methyltrichlorosilane 75-83-2 75-86-5, Acetone cyanohydrin 75-87-6, Chloral 75-91-2, tert-Butyl hydroperoxide 75-94-5, Vinyltrichlorosilane 76-01-7, Pentachloroethane 76-02-8, Trichloroacetyl chloride 76-03-9, properties 76-05-1, Trifluoroacetic acid, miscellaneous 76-06-2, Chloropicrin 76-06-2D, Chloropicrin, mixts. 76-15-3 76-16-4, Hexafluoroethane 76-19-7, Octafluoropropane 76-22-2, Camphor 77-47-4, Hexachlorocyclopentadiene 77-73-6 77-78-1, Dimethyl sulfate 78-00-2, Tetraethyl lead 78-10-4, Tetraethyl silicate 78-62-6, Dimethyldiethoxysilane 78-67-1, Azodiisobutyronitrile 78-76-2, 2-Bromobutane 78-78-4, Isopentane 78-79-5, Isoprene, miscellaneous 78-81-9, Isobutylamine 78-82-0,

Isobutyronitrile 78-83-1, Isobutanol, miscellaneous 78-84-2,  
 Isobutyraldehyde 78-85-3, Methacrylaldehyde 78-87-5, Propylene  
 dichloride 78-89-7, Propylene chlorohydrin 78-90-0,  
 1,2-Propylenediamine 78-93-3, 2-Butanone, miscellaneous 78-94-4,  
 Methyl vinyl ketone, miscellaneous 78-95-5, Monochloroacetone 79-01-6,  
 Trichloroethylene, miscellaneous 79-03-8, Propionyl chloride 79-04-9,  
 Chloroacetyl chloride 79-06-1, Acrylamide, miscellaneous 79-08-3,  
 Bromoacetic acid 79-09-4, Propionic acid, miscellaneous 79-10-7,  
 2-Propenoic acid, miscellaneous 79-11-8, Chloroacetic acid,  
 miscellaneous 79-20-9, Methyl acetate 79-21-0, Peroxyacetic acid  
 79-22-1 79-24-3, Nitroethane 79-29-8, 2,3-Dimethylbutane 79-30-1,  
 Isobutyryl chloride 79-31-2, Isobutyric acid 79-36-7, Dichloroacetyl  
 chloride 79-38-9 79-41-4, miscellaneous 79-42-5 79-43-6,  
 Dichloroacetic acid, miscellaneous 79-44-7, Dimethylcarbamoyl chloride  
 80-10-4, Diphenyldichlorosilane 80-15-9, Cumene hydroperoxide 80-17-1,  
 Benzene sulfohydrazide 80-47-7, p-Menthane hydroperoxide 80-51-3,  
 Diphenyloxide-4,4'-disulfohydrazide 80-56-8, .alpha.-Pinene 80-62-6  
 81-15-2 82-71-3 85-44-9, 1,3-Isobenzofurandione 86-50-0, Azinphos  
 methyl 87-68-3, Hexachlorobutadiene 87-90-1 88-17-5,  
 2-Trifluoromethylaniline 88-72-2, o-Nitrotoluene 88-73-3,  
 o-Chloronitrobenzene 88-74-4, o-Nitroaniline 88-75-5, o-Nitrophenol  
 88-89-1 89-58-7, p-Nitroxylene 91-17-8, Decahydronaphthalene  
 91-20-3, Naphthalene, miscellaneous 91-20-3D, Naphthalene, diozonide  
 derivs. 91-22-5, Quinoline, miscellaneous 91-59-8,  
 .beta.-Naphthylamine 91-66-7, N,N-Diethylaniline 92-52-4D, Biphenyl,  
 chloro derivs. 92-52-4D, Biphenyl, halo derivs. 92-59-1,  
 N-Ethyl-N-benzylaniline 92-87-5, Benzidine 93-58-3, Methyl benzoate  
 94-17-7, p-Chlorobenzoyl peroxide 94-36-0, Benzoyl peroxide,  
 miscellaneous 95-48-7, miscellaneous 95-50-1, o-Dichlorobenzene  
 95-54-5, o-Phenylenediamine, miscellaneous 95-55-6, o-Aminophenol  
 95-80-7 95-85-2, 2-Amino-4-chlorophenol 96-12-8, Dibromochloropropane  
 96-22-0, Diethyl ketone 96-23-1 96-24-2, Glycerol .alpha.-  
 monochlorohydrin 96-32-2, Methyl bromoacetate 96-33-3 96-34-4,  
 Methyl chloroacetate 96-37-7, Methyl cyclopentane 96-41-3,  
 Cyclopentanol 97-62-1, Ethyl isobutyrate 97-63-2 97-64-3, Ethyl  
 lactate 97-72-3, Isobutyric anhydride 97-85-8, Isobutyl isobutyrate  
 97-86-9 97-88-1 97-95-0 97-96-1, 2-Ethylbutyraldehyde 98-00-0,  
 Furfuryl alcohol 98-01-1, Furfural, miscellaneous 98-07-7,  
 Benzotrichloride 98-08-8, Benzotrifluoride 98-09-9, Benzene sulfonyl  
 chloride 98-12-4, Cyclohexyltrichlorosilane 98-13-5,  
 Phenyltrichlorosilane 98-16-8, 3-Trifluoromethylaniline 98-82-8,  
 Isopropylbenzene 98-83-9, miscellaneous 98-85-1, .alpha.-Methylbenzyl  
 alcohol 98-87-3, Benzylidene chloride 98-88-4, Benzoyl chloride  
 98-94-2 98-95-3, Nitrobenzene, miscellaneous 99-08-1, m-Nitrotoluene  
 99-09-2, m-Nitroaniline 99-35-4, Trinitrobenzene 99-99-0,  
 p-Nitrotoluene 100-00-5 100-01-6, p-Nitroaniline, miscellaneous  
 100-02-7, p-Nitrophenol, miscellaneous 100-17-4 100-34-5, Benzene  
 diazonium chloride 100-36-7, N,N-Diethylethylenediamine  
 RL: ADV (Adverse effect, including toxicity); PEP (Physical, engineering  
 or chemical process); BIOL (Biological study); PROC (Process)  
 (packaging and transport of, stds. for)  
 IT 100-37-8, Diethylaminoethanol 100-39-0, Benzyl bromide 100-41-4,  
 Ethylbenzene, miscellaneous 100-42-5, miscellaneous 100-44-7, Benzyl  
 chloride, miscellaneous 100-47-0, Benzonitrile, miscellaneous  
 100-50-5, 1,2,3,6-Tetrahydrobenzaldehyde 100-57-2, Phenylmercuric  
 hydroxide 100-61-8, N-Methylaniline, miscellaneous 100-63-0,  
 Phenylhydrazine 100-66-3, Anisole, miscellaneous 100-73-2, Acrolein  
 dimer 101-25-7, N,N'-Dinitrosopentamethylenetetramine 101-68-8

101-77-9, 4,4'-Diaminodiphenyl methane 101-83-7, Dicyclohexylamine  
 102-69-2, Tripropylamine 102-70-5, Triallylamine 102-81-8,  
 Dibutylaminoethanol 102-82-9, Tributylamine 103-65-1, n-Propylbenzene  
 103-69-5, N-Ethylaniline 103-71-9, Phenylisocyanate, miscellaneous  
 103-80-0, Phenylacetyl chloride 103-83-3, Benzyl dimethylamine  
 104-15-4, Toluene sulfonic acid, miscellaneous 104-51-8, Butylbenzene  
 104-75-6, 2-Ethylhexylamine 104-78-9 104-90-5, 2-Methyl-5-  
 ethylpyridine 105-36-2 105-37-3, Ethyl propionate 105-39-5, Ethyl  
 chloroacetate 105-48-6, Isopropyl chloroacetate 105-54-4, Ethyl  
 butyrate 105-56-6, Ethyl cyanoacetate 105-57-7, Acetal 105-58-8,  
 Diethyl carbonate 105-64-6, Isopropyl peroxydicarbonate 105-74-8,  
 Lauroyl peroxide 106-31-0, Butyric anhydride 106-44-5, p-Cresol,  
 miscellaneous 106-46-7, p-Dichlorobenzene 106-50-3,  
 p-Phenylenediamine, miscellaneous 106-51-4, 2,5-Cyclohexadiene-1,4-  
 dione, miscellaneous 106-63-8, Isobutyl acrylate 106-68-3, Ethyl amyl  
 ketone 106-88-7, 1,2-Butylene oxide 106-89-8, miscellaneous  
 106-92-3, Allyl glycidyl ether 106-93-4, Ethylene dibromide 106-95-6,  
 Allyl bromide, miscellaneous 106-96-7, 3-Bromopropyne 106-97-8,  
 Butane, miscellaneous 106-97-8D, Butane, mixts. 106-99-0,  
 1,3-Butadiene, miscellaneous 107-00-6, Ethylacetylene 107-02-8,  
 2-Propenal, miscellaneous 107-05-1, Allyl chloride 107-06-2, Ethylene  
 dichloride, miscellaneous 107-07-3, Ethylene chlorohydrin, miscellaneous  
 107-10-8, Propylamine, miscellaneous 107-11-9, Allylamine 107-12-0,  
 Propionitrile 107-13-1, Acrylonitrile, miscellaneous 107-14-2,  
 Chloroacetonitrile 107-15-3, Ethylenediamine, miscellaneous 107-18-6,  
 Allyl alcohol, miscellaneous 107-19-7, Propargyl alcohol 107-20-0,  
 Chloroacetaldehyde 107-25-5, Vinylmethyl ether 107-29-9, Acetaldehyde  
 oxime 107-30-2, Methylchloromethyl ether 107-31-3, Methyl formate  
 107-37-9, Allyltrichlorosilane 107-49-3, Tetraethyl pyrophosphate  
 107-70-0 107-71-1, tert-Butyl peroxyacetate 107-72-2,  
 Amyltrichlorosilane 107-81-3, 2-Bromopentane 107-82-4,  
 1-Bromo-3-methylbutane 107-87-9, Methyl propyl ketone 107-89-1, Aldol  
 107-92-6, Butyric acid, miscellaneous 108-01-0, Dimethylethanolamine  
 108-05-4, Acetic acid ethenyl ester, miscellaneous 108-09-8,  
 1,3-Dimethylbutylamine 108-10-1, Methyl isobutyl ketone 108-11-2,  
 Methyl isobutyl carbinol 108-18-9, Diisopropylamine 108-20-3,  
 Diisopropyl ether 108-21-4, Isopropyl acetate 108-22-5, Isopropenyl  
 acetate 108-23-6, Isopropyl chloroformate 108-24-7, Acetic anhydride  
 108-31-6, 2,5-Furandione, miscellaneous 108-39-4, miscellaneous  
 108-45-2, m-Phenylenediamine, miscellaneous 108-46-3, Resorcinol,  
 miscellaneous 108-67-8, miscellaneous 108-77-0 108-83-8, Diisobutyl  
 ketone 108-84-9 108-86-1, Benzene, bromo-, miscellaneous 108-87-2,  
 Methyl cyclohexane 108-88-3, Toluene, miscellaneous 108-90-7,  
 Chlorobenzene, miscellaneous 108-91-8, Cyclohexylamine, miscellaneous  
 108-94-1, Cyclohexanone, miscellaneous 108-95-2, Phenol, miscellaneous  
 108-98-5, Phenyl mercaptan, miscellaneous 109-02-4 109-09-1,  
 2-Chloropyridine 109-13-7, tert-Butyl peroxyisobutyrate 109-52-4,  
 Valeric acid, miscellaneous 109-53-5, Vinyl isobutyl ether 109-60-4,  
 n-Propyl acetate 109-61-5, n-Propyl chloroformate 109-63-7, Boron  
 trifluoride diethyl etherate 109-65-9, n-Butyl bromide 109-66-0,  
 Pentane, miscellaneous 109-70-6, 1-Chloro-3-bromopropane 109-73-9,  
 n-Butylamine, miscellaneous 109-74-0, Butyronitrile 109-77-3,  
 Malononitrile 109-79-5, Butyl mercaptan 109-86-4, Ethylene glycol  
 monomethyl ether 109-87-5, Methylal 109-89-7, Diethylamine,  
 miscellaneous 109-90-0, Ethyl isocyanate 109-92-2, Vinyl ethyl ether  
 109-93-3, Divinyl ether 109-94-4, Ethyl formate 109-95-5, Ethyl  
 nitrite 109-99-9, Tetrahydrofuran, miscellaneous 110-00-9, Furan  
 110-01-0, Tetrahydrothiophene **110-02-1**, Thiophene 110-12-3,

5-Methylhexan-2-one 110-16-7, Maleic acid, miscellaneous 110-18-9  
 110-19-0 110-22-5, Diacetyl peroxide 110-43-0, Amyl methyl ketone  
 110-49-6 110-54-3, Hexane, miscellaneous 110-58-7, Amylamine  
 110-62-3, Valeraldehyde 110-66-7, Amyl mercaptan 110-68-9,  
 N-Methylbutylamine 110-69-0, Butyraldoxime 110-71-4,  
 1,2-Dimethoxyethane 110-74-7, Propyl formate 110-78-1, n-Propyl  
 isocyanate 110-80-5, Ethylene glycol monoethyl ether 110-82-7,  
 Cyclohexane, miscellaneous 110-83-8, Cyclohexene, miscellaneous  
 110-85-0, Piperazine, miscellaneous 110-86-1, Pyridine, miscellaneous  
 110-87-2 110-89-4, Piperidine, miscellaneous 110-91-8, Morpholine,  
 miscellaneous 110-96-3, Diisobutylamine 111-15-9, Ethylene glycol  
 monoethyl ether acetate 111-34-2, Butylvinyl ether 111-36-4, n-Butyl  
 isocyanate 111-40-0 111-43-3, Dipropyl ether 111-49-9,  
 Hexamethylenimine 111-65-9, Octane, miscellaneous 111-69-3,  
 Adiponitrile 111-71-7, n-Heptaldehyde 111-76-2, Ethylene glycol  
 monobutyl ether 111-92-2, Di-n-butylamine 112-04-9 112-24-3,  
 Triethylenetetramine 112-57-2 115-07-1, Propylene, miscellaneous  
 115-10-6, Dimethyl ether 115-11-7, Isobutylene, miscellaneous  
 115-21-9, Ethyltrichlorosilane 115-25-3, Octafluorocyclobutane  
 116-14-3, Tetrafluoroethylene, miscellaneous 116-15-4,  
 Hexafluoropropylene 116-16-5, Hexachloroacetone 116-54-1, Methyl  
 dichloroacetate 118-74-1, Hexachlorobenzene 118-96-7, Trinitrotoluene  
 120-92-3, Cyclopentanone 121-43-7, Trimethyl borate 121-44-8,  
 Triethylamine, miscellaneous 121-45-9, Trimethyl phosphite 121-46-0,  
 2,5-Norbornadiene 121-69-7, N,N-Dimethylaniline, miscellaneous  
 121-73-3 121-82-4, Cyclotrimethylenetrinitramine 122-51-0, Ethyl  
 orthoformate 122-52-1, Triethyl phosphite 123-00-2,  
 4-Morpholinepropanamine 123-15-9 123-19-3, Dipropylketone 123-20-6,  
 Vinyl butyrate 123-23-9, Succinic acid peroxide 123-30-8,  
 p-Aminophenol 123-31-9, Hydroquinone, miscellaneous 123-38-6,  
 Propionaldehyde, miscellaneous 123-42-2, Diacetone alcohol 123-54-6,  
 2,4-Pentanedione, miscellaneous 123-62-6, Propionic anhydride  
 123-63-7, Paraldehyde 123-72-8, Butyraldehyde 123-75-1, Pyrrolidine,  
 miscellaneous 123-86-4, Butyl acetate 123-91-1, Dioxane, miscellaneous  
 124-02-7, Diallylamine 124-09-4, Hexamethylenediamine, miscellaneous  
 124-13-0, Octyl aldehyde 124-18-5, n-Decane 124-38-9, Carbon dioxide,  
 miscellaneous 124-40-3, Dimethylamine, miscellaneous 124-41-4, Sodium  
 methylate 124-43-6 124-65-2, Sodium cacodylate 126-98-7,  
 Methacrylonitrile 126-99-8, Chloroprene 127-18-4, Tetrachloroethylene,  
 miscellaneous 127-85-5, Sodium arsanilate 129-79-3 131-52-2, Sodium  
 pentachlorophenate 131-73-7, Hexanitrodiphenylamine 131-74-8, Ammonium  
 picrate 133-14-2 133-55-1, N,N'-Dinitroso-N,N'-dimethyl  
 terephthalamide 134-32-7, .alpha.-Naphthylamine 138-86-3, Dipentene  
 138-89-6 139-02-6, Sodium phenolate  
 RL: ADV (Adverse effect, including toxicity); PEP (Physical, engineering  
 or chemical process); BIOL (Biological study); PROC (Process)  
 (packaging and transport of, stds. for)  
 IT 140-29-4, Phenylacetonitrile 140-31-8, 1-Piperazineethanamine 140-80-7  
 140-88-5 141-32-2 141-43-5, Ethanolamine, miscellaneous 141-57-1,  
 Propyltrichlorosilane 141-59-3, tert-Octylmercaptan 141-75-3, Butyryl  
 chloride 141-78-6, Ethyl acetate, miscellaneous 141-79-7, Mesityl  
 oxide 142-04-1, Aniline hydrochloride 142-29-0, Cyclopentene  
 142-62-1, Hexanoic acid, miscellaneous 142-82-5, Heptane, miscellaneous  
 142-84-7, Dipropylamine 142-96-1, Dibutyl ether 143-33-9, Sodium  
 cyanide 144-49-0, Fluoroacetic acid 144-62-7D, Ethanedioic acid, salts  
 146-84-9, Silver picrate 149-74-6, Methylphenyldichlorosilane  
 151-50-8, Potassium cyanide 151-56-4, Ethylenimine, miscellaneous  
 156-62-7, Calcium cyanamide 260-94-6, Acridine 283-66-9, Hexamethylene

triperoxide diamine 287-23-0, Cyclobutane 287-92-3, Cyclopentane  
 291-64-5, Cycloheptane 298-00-0, Methyl parathion 298-07-7 302-01-2,  
 Hydrazine, miscellaneous 309-00-2, Aldrin 352-93-2, Diethyl sulfide  
 353-36-6, Ethyl fluoride 353-42-4, Boron trifluoride dimethyl etherate  
 353-50-4, Carbonyl fluoride 353-59-3 354-32-5, Trifluoroacetylchloride  
 357-57-3, Brucine 360-89-4, Octafluorobut-2-ene 428-59-1,  
 Hexafluoropropylene oxide 431-03-8, Butanedione 460-19-5, Cyanogen  
 462-06-6, Fluorobenzene 462-08-8, m-Aminopyridine 462-95-3,  
 Diethoxymethane 463-04-7, Amyl nitrite 463-49-0, Propadiene  
 463-58-1, Carbonyl sulfide 463-71-8, Thiophosgene 463-82-1,  
 2,2-Dimethylpropane 479-45-8 501-53-1, Benzyl chloroformate  
 502-98-7D, salts 503-74-2, Isopentanoic acid 504-24-5, 4-Pyridinamine  
 504-29-0, 2-Pyridinamine 506-64-9, Silver cyanide (Ag(CN)) 506-68-3,  
 Cyanogen bromide 506-77-4, Cyanogen chloride 506-85-4, Fulminic acid  
 506-93-4, Guanidine nitrate 506-96-7, Acetyl bromide 507-02-8, Acetyl  
 iodide 507-09-5, Thioacetic acid, miscellaneous 507-70-0, Borneol  
 509-14-8, Tetranitromethane 512-85-6, Ascaridole 513-35-9,  
 2-Methyl-2-butene 513-38-2 513-42-8, Methallyl alcohol 513-48-4,  
 2-Iodobutane 513-86-0, Acetyl methyl carbinol 517-25-9,  
 Trinitromethane 517-92-0, 1,8-Dihydroxy-2,4,5,7-tetranitroanthraquinone  
 519-44-8D, 2,4-Dinitroresorcinol, heavy metal salts 532-27-4,  
 Chloracetophenone 533-51-7, Silver oxalate 534-07-6,  
 1,3-Dichloroacetone 534-15-6, 1,1-Dimethoxyethane 534-22-5,  
 2-Methylfuran 535-13-7, Ethyl-2-chloropropionate 540-18-1, Amyl  
 butyrate 540-42-1, Isobutyl propionate 540-54-5, Propyl chloride  
 540-67-0, Ethyl methyl ether 540-73-8 540-82-9, Ethylsulfuric acid  
 540-84-1, Isooctane 541-41-3, Ethyl chloroformate 542-55-2, Isobutyl  
 formate 542-62-1, Barium cyanide 542-88-1, Dichlorodimethyl ether,  
 symmetrical 543-27-1, Isobutyl chloroformate 543-59-9, Amyl chloride  
 544-16-1, Butyl nitrite 544-25-2, Cycloheptatriene 544-97-8, Dimethyl  
 zinc 545-55-1, Tris(1-aziridinyl)phosphine oxide 554-12-1, Methyl  
 propionate 554-84-7, m-Nitrophenol 555-54-4, Magnesium diphenyl  
 556-24-1, Methyl isovalerate 556-56-9, Allyl iodide 556-61-6, Methyl  
 isothiocyanate 556-88-7 556-89-8, Nitrourea 557-17-5, Methyl propyl  
 ether 557-19-7, Nickel cyanide (Ni(CN)<sub>2</sub>) 557-20-0, Diethylzinc  
 557-21-1, Zinc cyanide 557-31-3, Allyl ethyl ether 557-40-4,  
 Diallylether 557-98-2, 2-Chloropropene 558-13-4, Carbon tetrabromide  
 563-45-1, 3-Methyl-1-butene 563-46-2, 2-Methyl-1-butene 563-47-3,  
 Methyl allyl chloride 563-80-4, 3-Methylbutan-2-one 578-54-1,  
 2-Ethylaniline 578-94-9, Diphenylamine chloroarsine 582-61-6, Benzoyl  
 azide 583-15-3, Mercury benzoate 584-79-2, Allethrin 585-79-5,  
 1-Bromo-3-nitrobenzene 586-62-9, Terpinolene 587-85-9D, compds.  
 590-01-2, Butylpropionate 590-36-3, 2-Methylpentan-2-ol 591-27-5,  
 m-Aminophenol 591-87-7, Allyl acetate 591-89-9, Mercuric potassium  
 cyanide 592-01-8, Calcium cyanide 592-05-2, Lead cyanide (Pb(CN)<sub>2</sub>)  
 592-34-7, n-Butylchloroformate 592-41-6, 1-Hexene, miscellaneous  
 592-55-2, 2-Bromoethyl ethyl ether 592-63-2 592-84-7, n-Butylformate  
 593-53-3, Methyl fluoride 593-60-2, Vinyl bromide 593-89-5,  
 Methylchloroarsine 594-42-3, Perchloromethylmercaptan 594-72-9,  
 1,1-Dichloro-1-nitroethane 598-14-1, Ethyldichloroarsine 598-21-0,  
 Bromoacetyl bromide 598-31-2, Bromoacetone 598-57-2, Methyl nitramine  
 598-57-2D, Methyl nitramine, metal salts 598-58-3, Methyl nitrate  
 598-73-2, Bromotrifluoroethylene 598-78-7, .alpha.-Chloropropionic acid  
 598-99-2, Methyl trichloroacetate 602-96-0, 1,3,5-Trimethyl-2,4,6-  
 trinitrobenzene 602-99-3, Trinitro-m-cresol 602-99-3D, Methyl picric  
 acid, heavy metal salts 608-50-4, 2,4-Dinitro-1,3,5-trimethylbenzene  
 610-38-8, 4-Bromo-1,2-dinitrobenzene 616-38-6, Dimethyl carbonate  
 616-74-0D, 4,6-Dinitroresorcinol, heavy metal salts 617-37-8 617-50-5,

Isopropyl isobutyrate 617-89-0, Furfurylamine 619-97-6, Benzene diazonium nitrate 620-05-3, Benzyl iodide 622-44-6, Phenylcarbylamine chloride 622-45-7, Cyclohexyl acetate 623-42-7, Methyl butyrate 623-87-0, Glycerol-1,3-dinitrate 624-61-3, Dibromoacetylene 624-74-8, Diiodoacetylene 624-83-9, Methyl isocyanate 624-91-9, Methyl nitrite 624-92-0, Dimethyl disulfide 625-76-3, Dinitromethane 626-67-5, 1-Methylpiperidine 627-13-4, n-Propyl nitrate 627-30-5 627-63-4, Fumaryl chloride 628-28-4, Butyl methyl ether 628-32-0, Ethyl propyl ether 628-63-7, Amyl acetate 628-81-9, Ethyl butyl ether 628-86-4, Mercury fulminate 628-92-2, Cycloheptene 628-96-6, Ethylene glycol dinitrate 629-13-0, 1,2-Diazidoethane 629-14-1 629-20-9, Cyclooctatetraene 630-08-0, Carbon monoxide, miscellaneous 630-72-8, Trinitroacetoneitrile 637-78-5, Isopropyl propionate 638-11-9, Isopropyl butyrate 638-29-9, Valeryl chloride 638-49-3, Amyl formate 641-16-7, 2,3,4,6-Tetranitrophenol 644-31-5, Acetyl benzoyl peroxide 644-97-3, Phenyl phosphorus dichloride 645-55-6, N-Nitroaniline 646-06-0, Dioxolane 674-81-7, Nitrosoguanidine 674-82-8, Diketene 676-83-5, Methyl phosphonous dichloride 676-97-1, Methyl phosphonic dichloride 676-98-2, Methyl phosphonothioic dichloride 677-71-4, Hexafluoroacetone hydrate 681-84-5, Methyl orthosilicate 684-16-2, Hexafluoroacetone 693-21-0, Diethylene glycol dinitrate 694-05-3, 1,2,3,6-Tetrahydropyridine 757-58-4, Hexaethyl tetraphosphate 762-12-9, Decanoyl peroxide 762-13-0, Pelargonyl peroxide 762-16-3 765-34-4, Glycidaldehyde 766-09-6, 1-Ethylpiperidine 771-29-9, Tetralin hydroperoxide 776-74-9, Diphenylmethyl bromide 814-78-8, Methyl isopropenyl ketone 822-06-0 831-52-7, Sodium picramate 883-40-9, Diazodiphenylmethane 918-37-6, Hexanitroethane 918-54-7, Trinitroethanol 926-63-6 926-64-7, 2-Dimethylaminoacetoneitrile 928-65-4, Hexyltrichlorosilane 929-06-6, 2-(2-Aminoethoxy)ethanol 993-00-0, Methylchlorosilane 993-12-4 993-43-1, Ethyl phosphonothioic dichloride 1002-16-0, Amyl nitrate 1070-19-5, tert-Butoxycarbonyl azide 1120-21-4, Undecane 1125-27-5

RL: ADV (Adverse effect, including toxicity); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process) (packaging and transport of, stds. for)

IT 1126-78-9 1187-93-5, Perfluoromethyl vinyl ether 1299-86-1, Aluminum carbide 1300-64-7, Anisoyl chloride 1300-71-6, Xylenol 1300-73-8D, derivs. 1303-28-2, Arsenic pentoxide 1303-33-9, Arsenic sulfide 1303-33-9D, Arsenic sulfide, mixt. with chlorates 1304-28-5, Barium oxide, miscellaneous 1304-29-6, Barium peroxide 1305-78-8, Calcium oxide, miscellaneous 1305-79-9, Calcium peroxide 1305-99-3, Calcium phosphide 1309-60-0, Lead dioxide 1310-58-3, Potassium hydroxide, miscellaneous 1310-65-2, Lithium hydroxide 1310-73-2, Sodium hydroxide, miscellaneous 1310-82-3, Rubidium hydroxide 1312-73-8, Potassium sulfide 1313-60-6, Sodium peroxide 1313-82-2, Sodium sulfide, miscellaneous 1314-18-7, Strontium peroxide 1314-22-3, Zinc peroxide 1314-24-5, Phosphorus trioxide 1314-34-7, Vanadium trioxide 1314-56-3, Phosphorus pentoxide, miscellaneous 1314-62-1, Vanadium pentoxide, miscellaneous 1314-80-3, Phosphorus sulfide (P2S5) 1314-84-7, Zinc phosphide 1314-85-8, Phosphorus sesquisulfide 1319-77-3, Cresylic acid 1320-37-2, Dichlorotetrafluoroethane 1321-10-4, Chlorocresol 1321-31-9, Phenetidine 1327-53-3, Arsenic trioxide 1330-20-7, Xylene, miscellaneous 1330-45-6, Chlorotrifluoroethane 1330-78-5, Tricresyl phosphate 1331-22-2, Methyl cyclohexanone 1332-12-3, Fulminating gold 1332-37-2, Iron oxide, properties 1333-39-7, Phenolsulfonic acid 1333-41-1, Picoline 1333-74-0, Hydrogen, miscellaneous 1333-82-0, Chromium trioxide 1333-83-1, Sodium hydrogen fluoride 1335-26-8, Magnesium peroxide



1335-31-5, Mercury oxycyanide 1335-85-9, Dinitro-o-cresol 1336-21-6,  
 Ammonium hydroxide 1337-81-1 1338-23-4, Methyl ethyl ketone peroxide  
 1341-24-8, Chloroacetophenone 1341-49-7, Ammonium hydrogen fluoride  
 1344-40-7, Lead phosphite, dibasic 1344-67-8, Copper chloride  
 1498-40-4, Ethyl phosphonous dichloride 1498-51-7, Ethyl  
 phosphorodichloridate 1569-69-3, Cyclohexyl mercaptan 1609-86-5,  
 tert-Butyl isocyanate 1623-15-0 1623-24-1, Isopropyl acid phosphate  
 1634-04-4, Methyl-tert-butyl ether 1693-71-6, Triallyl borate  
 1705-60-8, 2,2-Di(4,4-di-tert-butylperoxycyclohexyl)propane 1712-64-7,  
 Isopropyl nitrate 1719-53-5, Diethyldichlorosilane 1737-93-5,  
 3,5-Dichloro-2,4,6-trifluoropyridine 1789-58-8, Ethyldichlorosilane  
 1795-48-8, Isopropyl isocyanate 1838-59-1, Allyl formate 1873-29-6,  
 Isobutyl isocyanate 1885-14-9, Phenylchloroformate 1947-27-9, Arsenic  
 trichloride 2050-92-2, Di-n-amylamine 2094-98-6, 1,1'-  
 Azodi(hexahydrobenzonitrile) 2144-45-8, Dibenzyl peroxydicarbonate  
 2155-71-7 2167-23-9, 2,2-Di(tert-butylperoxy)butane 2217-06-3,  
 Dipicryl sulfide 2243-94-9, 1,3,5-Trinitronaphthalene 2244-21-5,  
 Potassium dichloroisocyanurate 2294-47-5, p-Diazidobenzene 2312-76-7  
 2338-12-7, 5-Nitrobenzotriazole 2487-90-3, Trimethoxysilane 2508-19-2,  
 Trinitrobenzenesulfonic acid 2524-03-0, Dimethyl chlorothiophosphate  
 2524-04-1, Diethylthiophosphoryl chloride 2549-51-1, Vinyl chloroacetate  
 2551-62-4, Sulfur hexafluoride 2567-83-1, Tetraethylammonium perchlorate  
 2657-00-3, Sodium 2-diazo-1-naphthol-5-sulfonate 2691-41-0,  
 Cyclotetramethylenetetranitramine 2696-92-6, Nitrosyl chloride  
 2699-79-8, Sulfuryl fluoride 2782-57-2, Dichloroisocyanuric acid  
 2782-57-2D, Dichloroisocyanuric acid, salts 2820-51-1, Nicotine  
 hydrochloride 2825-15-2 2855-13-2, Isophoronediamine 2867-47-2,  
 Dimethylaminoethyl methacrylate 2893-78-9, Sodium dichloroisocyanurate  
 2937-50-0, Allyl chloroformate 2941-64-2, Ethyl chlorothioformate  
 2980-64-5 3025-88-5, 2,5-Dimethyl-2,5-dihydroperoxy hexane 3031-74-1,  
 Ethyl hydroperoxide 3032-55-1 3054-95-3, 3,3-Diethoxypropene  
 3087-37-4, Tetrapropylorthotitanate 3129-90-6, Isothiocyanic acid  
 3129-91-7, Dicyclohexylammonium nitrite 3132-64-7, Epibromohydrin  
 3165-93-3, 4-Chloro-o-toluidine hydrochloride 3173-53-3, Cyclohexyl  
 isocyanate 3179-56-4, Acetyl cyclohexanesulfonyl peroxide 3188-13-4,  
 Chloromethyl ethyl ether 3248-28-0, Dipropionyl peroxide 3268-49-3  
 3275-73-8, Nicotine tartrate 3282-30-2, Trimethylacetyl chloride  
 3497-00-5, Phenyl phosphorus thiodichloride 3689-24-5 3724-65-0,  
 Crotonic acid 3811-04-9, Potassium chlorate 3926-62-3, Sodium  
 chloroacetate 3982-91-0, Thiophosphoryl chloride 4016-11-9,  
 1,2-Epoxy-3-ethoxypropane 4098-71-9 4109-96-0, Dichlorosilane  
 4170-30-3, Crotonaldehyde 4300-97-4 4316-42-1, N-n-Butylimidazole  
 4419-11-8, 2,2'-Azodi(2,4-dimethylvaleronitrile) 4421-50-5 4435-53-4,  
 Butoxyl 4452-58-8, Sodium percarbonate 4472-06-4, Carbonazidodithioic  
 acid 4484-72-4, Dodecyltrichlorosilane 4528-34-1 4547-70-0  
 4591-46-2 4682-03-5, Diazodinitrophenol 4795-29-3,  
 Tetrahydrofurfurylamine 4904-61-4, 1,5,9-Cyclododecatriene 5283-66-9,  
 Octyltrichlorosilane 5283-67-0, Nonyltrichlorosilane 5329-14-6,  
 Sulfamic acid 5419-55-6, Triisopropyl borate 5610-59-3, Silver  
 fulminate 5637-83-2, Cyanuric triazide 5653-21-4 5894-60-0,  
 Hexadecyltrichlorosilane 5970-32-1, Mercury salicylate 6023-29-6  
 6275-02-1 6423-43-4 6427-21-0, Methoxymethyl isocyanate 6484-52-2,  
 Nitric acid ammonium salt, properties 6484-52-2D, Ammonium nitrate,  
 mixts. with fuel oils 6505-86-8, Nicotine sulfate 6659-60-5,  
 1,2,4-Butanetriol trinitrate 6842-15-5, Propylene tetramer 7304-92-9  
 7332-16-3, Inositol hexanitrate 7429-90-5, Aluminum, miscellaneous  
 7429-90-5D, Aluminum, alkyl derivs. 7439-90-9, Krypton, miscellaneous  
 7439-92-1D, Lead, compds. 7439-93-2, Lithium, miscellaneous

7439-93-2D, Lithium, alkyl derivs. 7439-95-4, Magnesium, miscellaneous  
 7439-95-4D, Magnesium, alkyl derivs. 7439-97-6, Mercury, miscellaneous  
 7439-97-6D, Mercury, compds. 7440-01-9, Neon, miscellaneous 7440-09-7,  
 Potassium, miscellaneous 7440-17-7, Rubidium, miscellaneous 7440-21-3,  
 Silicon, miscellaneous 7440-23-5, Sodium, miscellaneous 7440-28-0D,  
 Thallium, compds. 7440-29-1, Thorium, miscellaneous 7440-31-5D, Tin,  
 org. compds. 7440-32-6, Titanium, properties 7440-36-0, Antimony,  
 miscellaneous 7440-36-0D, Antimony, inorg. and org. compds. 7440-37-1,  
 Argon, miscellaneous 7440-38-2, Arsenic, miscellaneous 7440-39-3,  
 Barium, miscellaneous 7440-39-3D, Barium, alloys 7440-39-3D, Barium,  
 compds. 7440-41-7, Beryllium, miscellaneous 7440-41-7D, Beryllium,  
 compds. 7440-43-9D, Cadmium, compds. 7440-44-0, Carbon, miscellaneous  
 7440-45-1, Cerium, miscellaneous 7440-46-2, Cesium, miscellaneous  
 7440-55-3, Gallium, miscellaneous 7440-58-6, Hafnium, miscellaneous  
 7440-59-7, Helium, miscellaneous 7440-61-1, Uranium, miscellaneous  
 7440-63-3, Xenon, miscellaneous 7440-66-6, Zinc, miscellaneous  
 7440-67-7, Zirconium, miscellaneous 7440-70-2, Calcium, miscellaneous  
 7440-70-2D, Calcium, alloys 7446-09-5, Sulfur dioxide, miscellaneous  
 7446-11-9, Sulfur trioxide, miscellaneous 7446-14-2, Lead sulfate  
 7446-18-6, Thallium sulfate 7446-70-0, Aluminum chloride (AlCl<sub>3</sub>),  
 miscellaneous 7487-94-7, Mercuric chloride, miscellaneous 7488-56-4,  
 Selenium disulfide 7521-80-4, Butyltrichlorosilane 7550-45-0, Titanium  
 tetrachloride, miscellaneous 7570-26-5, 1,2-Dinitroethane 7572-29-4,  
 Dichloroacetylene 7578-36-1 7580-67-8, Lithium hydride 7601-89-0,  
 Sodium perchlorate 7601-90-3, Perchloric acid, miscellaneous  
 7616-94-6, Perchloryl fluoride 7631-89-2, Sodium arsenate 7631-99-4,  
 Sodium nitrate, miscellaneous 7632-00-0, Sodium nitrite 7632-51-1,  
 Vanadium tetrachloride 7637-07-2, Boron trifluoride, miscellaneous  
 7645-25-2, Lead arsenate 7646-69-7, Sodium hydride 7646-78-8, Stannic  
 chloride, miscellaneous 7646-85-7, Zinc chloride, miscellaneous  
 7646-93-7, Potassium hydrogen sulfate 7647-01-0, Hydrogen chloride,  
 miscellaneous 7647-18-9, Antimony pentachloride 7647-19-0, Phosphorus  
 pentafluoride

RL: ADV (Adverse effect, including toxicity); PEP (Physical, engineering  
 or chemical process); BIOL (Biological study); PROC (Process)  
 (packaging and transport of, stds. for)

IT 7664-38-2, Phosphoric acid, miscellaneous 7664-38-2D, Phosphoric acid,  
 esters 7664-39-3, Hydrogen fluoride, miscellaneous 7664-41-7, Ammonia,  
 miscellaneous 7664-93-9, Sulfuric acid, miscellaneous 7681-38-1,  
 Sodium hydrogen sulfate 7681-49-4, Sodium fluoride, miscellaneous  
 7681-52-9, Sodium hypochlorite 7697-37-2, Nitric acid, miscellaneous  
 7704-34-9, Sulfur, miscellaneous 7705-07-9D, Titanium trichloride,  
 mixts. 7705-08-0, Ferric chloride, miscellaneous 7718-98-1, Vanadium  
 trichloride 7719-09-7, Thionyl chloride 7719-12-2, Phosphorus  
 trichloride 7722-64-7, Potassium permanganate 7722-84-1, Hydrogen  
 peroxide (H<sub>2</sub>O<sub>2</sub>), miscellaneous 7723-14-0, Phosphorus, miscellaneous  
 7726-95-6, Bromine, miscellaneous 7727-15-3, Aluminum bromide  
 7727-18-6, Vanadium oxytrichloride 7727-21-1, Potassium persulfate  
 7727-37-9, Nitrogen, miscellaneous 7727-37-9D, Nitrogen, mixts. with  
 rare gases 7727-54-0, Ammonium persulfate 7738-94-5, Chromic acid  
 (H<sub>2</sub>CrO<sub>4</sub>) 7756-94-7, Triisobutylene 7757-79-1, Potassium nitrate,  
 miscellaneous 7758-01-2, Potassium bromate 7758-09-0, Potassium  
 nitrite 7758-19-2, Sodium chlorite 7758-94-3, Ferrous chloride  
 7761-88-8, Silver nitrate, miscellaneous 7773-03-7, Potassium bisulfite  
 7775-09-9, Sodium chlorate 7775-14-6, Sodium dithionite 7778-39-4,  
 Arsenic acid 7778-44-1, Calcium arsenate 7778-54-3, Calcium  
 hypochlorite 7778-66-7 7778-74-7, Potassium perchlorate 7779-86-4,  
 Zinc dithionite 7779-88-6, Zinc nitrate 7782-39-0, Deuterium,

miscellaneous 7782-41-4, Fluorine, miscellaneous 7782-44-7, Oxygen,  
 miscellaneous 7782-44-7D, Oxygen, mixts. with rare gases 7782-49-2,  
 Selenium, miscellaneous 7782-50-5, Chlorine, miscellaneous 7782-65-2,  
 Germane 7782-78-7, Nitrosylsulfuric acid 7782-79-8D, Hydrazoic acid,  
 copper complexes 7782-99-2, Sulfurous acid, miscellaneous 7783-06-4,  
 Hydrogen sulfide, miscellaneous 7783-07-5, Hydrogen selenide (H<sub>2</sub>Se)  
 7783-08-6, Selenic acid 7783-33-7 7783-41-7, Oxygen difluoride  
 7783-54-2, Nitrogen trifluoride 7783-56-4, Antimony trifluoride  
 7783-60-0, Sulfur tetrafluoride 7783-61-1, Silicon tetrafluoride  
 7783-66-6, Iodine pentafluoride 7783-70-2, Antimony pentafluoride  
 7783-79-1, Selenium hexafluoride 7783-80-4, Tellurium hexafluoride  
 7783-81-5, Uranium hexafluoride 7783-82-6, Tungsten hexafluoride  
 7783-91-7, Silver chlorite 7784-08-9 7784-21-6, Aluminum hydride  
 7784-30-7, Aluminum phosphate 7784-42-1, Arsine 7784-46-5, Sodium  
 arsenite 7786-30-3D, Magnesium chloride (MgCl<sub>2</sub>), mixt. with chlorates  
 7787-36-2, Barium permanganate 7787-41-9, Barium selenate 7787-71-5,  
 Bromine trifluoride 7788-97-8, Chromic fluoride 7789-09-5, Ammonium  
 dichromate 7789-18-6, Cesium nitrate 7789-21-1, Fluorosulfonic acid  
 7789-23-3, Potassium fluoride 7789-29-9, Potassium bifluoride  
 7789-30-2, Bromine pentafluoride 7789-38-0, Sodium bromate 7789-59-5,  
 Phosphorus oxybromide 7789-60-8, Phosphorus tribromide 7789-61-9,  
 Antimony tribromide 7789-69-7, Phosphorus pentabromide 7789-78-8,  
 Calcium hydride 7790-59-2 7790-69-4, Lithium nitrate 7790-91-2,  
 Chlorine trifluoride 7790-93-4, Chloric acid 7790-94-5, Chlorosulfonic  
 acid 7790-98-9, Ammonium perchlorate 7790-99-0, Iodine monochloride  
 7791-10-8, Strontium chlorate 7791-23-3, Selenium oxychloride  
 7791-25-5, Sulfuryl chloride 7791-27-7, Disulfuryl chloride 7803-51-2,  
 Phosphine 7803-52-3, Stibine 7803-54-5, Magnesium diamide 7803-55-6,  
 Ammonium metavanadate 7803-57-8, Hydrazine hydrate 7803-62-5, Silane,  
 miscellaneous 7803-63-6, Ammonium hydrogen sulfate 8004-09-9  
 8006-19-7, Amatol 8006-28-8, Soda lime 8007-56-5, Nitrohydrochloric  
 acid 8007-58-7 8012-74-6, London Purple 8014-95-7, Fuming sulfuric  
 acid 8049-17-0, Ferrosilicon 8050-88-2, Celluloid 8063-77-2  
 8065-53-0, Hexolite 8066-33-9, Pentolite 8070-50-6 9003-53-6,  
 Polystyrene 9004-70-0, Collodion 9056-38-6, Nitrostarch 9080-17-5,  
 Ammonium polysulfide 10022-31-8, Barium nitrate 10024-97-2, Nitrogen  
 oxide (N<sub>2</sub>O), properties 10025-78-2, Trichlorosilane 10025-85-1,  
 Nitrogen trichloride 10025-87-3, Phosphorus oxychloride 10025-91-9,  
 Antimony trichloride 10026-04-7, Silicon tetrachloride 10026-11-6,  
 Zirconium tetrachloride 10026-13-8, Phosphorus pentachloride  
 10031-13-7 10031-87-5, 2-Ethylbutyl acetate 10034-81-8, Magnesium  
 perchlorate 10034-85-2, Hydrogen iodide 10035-10-6, Hydrogen bromide,  
 miscellaneous 10039-54-0, Hydroxylamine sulfate 10042-76-9, Strontium  
 nitrate 10045-94-0, Mercuric nitrate 10049-04-4, Chlorine dioxide  
 10099-74-8, Lead nitrate 10101-50-5 10102-06-4, Uranyl nitrate  
 10102-12-2, Selenium nitride 10102-18-8, Sodium selenite 10102-43-9,  
 Nitric oxide, miscellaneous 10102-44-0, Nitrogen dioxide, miscellaneous  
 10102-49-5, Ferric arsenate 10102-50-8, Ferrous arsenate 10103-50-1,  
 Magnesium arsenate 10118-76-0 10124-37-5, Calcium nitrate  
 10124-48-8, Mercury ammonium chloride 10124-50-2, Potassium arsenite  
 10137-74-3, Calcium chlorate 10192-29-7, Ammonium chlorate 10241-05-1,  
 Molybdenum pentachloride 10256-53-8, Methanamine, compd. with  
 trinitromethane, miscellaneous 10294-33-4, Boron tribromide  
 10294-34-5, Boron trichloride 10306-83-9 10326-21-3, Magnesium  
 chlorate 10326-24-6 10361-95-2, Zinc chlorate 10377-60-3, Magnesium  
 nitrate 10377-66-9, Manganese nitrate 10415-75-5, Mercurous nitrate  
 10421-48-4, Ferric nitrate 10431-47-7 10544-63-5, Ethyl crotonate  
 11069-19-5, Dichlorobutene 11071-47-9, Isooctene 11099-22-2

11105-16-1, Zirconium hydride 11122-26-2 11135-81-2 11138-49-1,  
 Sodium aluminate 11140-68-4, Titanium hydride 12001-28-4, Crocidolite  
 12001-29-5, Chrysotile 12002-19-6, Mercury nucleate 12002-48-1,  
 Trichlorobenzene 12030-88-5, Potassium superoxide 12031-80-0, Lithium  
 peroxide 12033-49-7, Nitrogen trioxide 12034-12-7, Sodium superoxide  
 12057-74-8, Magnesium phosphide ( $Mg_3P_2$ ) 12125-01-8, Ammonium fluoride  
 12135-76-1, Ammonium sulfide 12136-15-1, Mercury nitride 12164-94-2,  
 Ammonium azide 12167-20-3, Nitrocresol 12172-67-7, Actinolite  
 12401-70-6, Potassium monoxide 12401-86-4, Sodium monoxide 12427-38-2,  
 Maneb 12440-42-5, Tin phosphide ( $Sn_3P_4$ ) 12504-16-4, Strontium  
 phosphide ( $Sr_3P_2$ ) 12627-52-0, Antimony sulfide 12627-52-0D, Antimony  
 sulfide, mixt. with chlorates 12640-89-0, Selenium oxide 12653-71-3,  
 Mercury oxide 12737-18-7, Calcium silicide 12751-03-0, Cordite  
 12771-08-3, Sulfur chloride 12789-46-7, Amyl acid phosphate  
 13092-75-6, Silver acetylide 13138-45-9 13225-10-0,  
 .alpha.-Methylglucoside tetranitrate 13319-75-0, Boron trifluoride  
 dihydrate 13410-01-0, Sodium selenate 13424-46-9, Lead azide  
 13426-91-0, Cupriethylenediamine 13437-80-4, Mercuric arsenate  
 13444-85-4, Nitrogen triiodide 13446-10-1, Ammonium permanganate  
 13446-48-5, Ammonium nitrite 13450-97-0, Strontium perchlorate  
 13453-30-0, Thallium chlorate 13463-39-3, Nickel carbonyl 13463-40-6,  
 Iron pentacarbonyl 13464-33-0, Zinc arsenate 13464-58-9D, Arsenous  
 acid, copper complexes 13465-73-1, Bromosilane 13465-95-7, Barium  
 perchlorate 13472-08-7 13473-90-0, Aluminum nitrate 13477-00-4,  
 Barium chlorate 13477-10-6, Barium hypochlorite 13477-36-6, Calcium  
 perchlorate 13520-83-7, Uranyl nitrate hexahydrate 13537-32-1,  
 Fluorophosphoric acid 13548-38-4, Chromium nitrate  
 RL: ADV (Adverse effect, including toxicity); PEP (Physical, engineering  
 or chemical process); BIOL (Biological study); PROC (Process)

(packaging and transport of, stds. for)  
 IT 13597-54-1, Zinc selenate 13597-99-4, Beryllium nitrate 13598-36-2,  
 Phosphonic acid 13637-63-3, Chlorine pentafluoride 13637-76-8, Lead  
 perchlorate 13718-59-7 13746-89-9, Zirconium nitrate 13762-51-1,  
 Potassium borohydride 13766-44-4, Mercury sulfate 13769-43-2,  
 Potassium metavanadate 13770-96-2, Sodium aluminum hydride 13774-25-9  
 13779-41-4, Difluorophosphoric acid 13780-03-5, Calcium bisulfite  
 13823-29-5, Thorium nitrate 13840-33-0, Lithium hypochlorite  
 13840-33-0D, Lithium hypochlorite, mixts. 13843-59-9, Ammonium bromate  
 13863-88-2, Silver azide 13967-90-3, Barium bromate 13973-87-0,  
 Bromine azide 13973-88-1, Chlorine azide 13987-01-4, Tripropylene  
 14014-86-9 14019-91-1, Calcium selenate 14293-73-3 14448-38-5,  
 Hyponitrous acid 14519-07-4, Zinc bromate 14519-17-6, Magnesium  
 bromate 14546-44-2, Hydrazine azide 14567-73-8, Tremolite  
 14644-61-2, Zirconium sulfate 14666-78-5, Diethylperoxydicarbonate  
 14674-72-7, Calcium chlorite 14696-82-3, Iodine azide ( $I(N_3)$ )  
 14977-61-8 15195-06-9 15245-44-0, Lead trinitroresorcinat  
 15347-57-6, Lead acetate 15457-98-4 15512-36-4, Calcium dithionite  
 15545-97-8, 2,2'-Azodi(2,4-dimethyl-4-methoxyvaleronitile) 15598-34-2,  
 Pyridine perchlorate 15718-71-5, Ethylenediamine diperchlorate  
 15825-70-4, Mannitol hexanitrate 15875-44-2, Methylamine perchlorate  
 16215-49-9, Di-n-butyl peroxydicarbonate 16229-43-9, Vanadyl sulfate  
 16339-86-9 16646-35-8 16721-80-5, Sodium hydrosulfide 16753-36-9,  
 Copper acetylide 16853-85-3, Lithium aluminum hydride 16871-71-9, Zinc  
 fluorosilicate 16871-90-2, Potassium fluorosilicate 16872-11-0  
 16893-85-9, Sodium fluorosilicate 16901-76-1, Thallium nitrate  
 16919-19-0, Ammonium fluorosilicate 16940-66-2, Sodium borohydride  
 16940-81-1, Hexafluorophosphoric acid 16941-12-1, Chloroplatinic acid  
 16949-15-8, Lithium borohydride 16949-65-8, Magnesium fluorosilicate

16961-83-4, Fluorosilicic acid 16962-07-5, Aluminum borohydride  
 17014-71-0, Potassium peroxide 17068-78-9, Anthophyllite 17462-58-7,  
 sec-Butyl chloroformate 17639-93-9, Methyl-2-chloropropionate  
 17687-37-5, Urea nitrate 17702-41-9, Decaborane 17861-62-0  
 18130-44-4, Titanium sulfate 18414-36-3 18810-58-7, Barium azide  
 19159-68-3 19287-45-7, Diborane 19287-45-7D, Diborane, mixts.  
 19624-22-7, Pentaborane 20062-22-0 20236-55-9, Barium styphnate  
 20600-96-8 20816-12-0, Osmium tetroxide 20820-44-4 20859-73-8,  
 Aluminum phosphide 21351-79-1, Cesium hydroxide (Cs(OH)) 21569-01-7  
 21723-86-4 21985-87-5, Pentanitroaniline 22128-62-7,  
 Chloromethylchloroformate 22750-93-2, Ethyl perchlorate 22751-24-2  
 22826-61-5 23414-72-4, Zinc permanganate 23745-86-0, Potassium  
 fluoroacetate 24167-76-8, Sodium phosphide 24468-13-1,  
 2-Ethylhexylchloroformate 24884-69-3 25013-15-4, Vinyl toluene  
 25109-57-3 25134-21-8 25136-55-4, Dimethyldioxane 25154-42-1,  
 Chlorobutane 25154-54-5, Dinitrobenzene 25155-15-1, Cymene  
 25167-20-8, Tetrabromoethane 25167-67-3, Butylene 25167-70-8,  
 Diisobutylene 25167-80-0, Chlorophenol 25168-05-2, Chlorotoluene  
 25265-68-3, Methyltetrahydrofuran 25321-14-6, Dinitrotoluene  
 25322-01-4, Nitropropane 25322-20-7, Tetrachloroethane 25323-30-2,  
 Dichloroethylene 25339-56-4, Heptene 25340-17-4, Diethylbenzene  
 25377-72-4, n-Amylene 25496-08-6, Fluorotoluene 25497-28-3,  
 Difluoroethane 25497-29-4, Chlorodifluoroethane 25513-64-8  
 25550-53-2 25550-55-4, Dinitrosobenzene 25550-58-7, Dinitrophenol  
 25550-58-7D, Dinitrophenol, salts 25567-67-3, Chlorodinitrobenzene  
 25567-68-4, Chloronitrotoluene 25639-42-3, Methylcyclohexanol  
 25721-38-4, Lead picrate 25917-35-5, Hexanol 26134-62-3, Lithium  
 nitride 26140-60-3D, Terphenyl, halo derivs. 26249-12-7,  
 Dibromobenzene 26471-56-7, Dinitroaniline 26471-62-5, Toluene  
 diisocyanate 26506-47-8, Copper chlorate 26571-79-9 26618-70-2  
 26628-22-8, Sodium azide 26638-19-7, Dichloropropane 26645-10-3  
 26760-64-5, Isopentene 26762-93-6 26914-02-3, Iodopropane  
 26915-12-8, Toluidine 26952-23-8, Dichloropropene 26952-42-1,  
 Trinitroaniline 27134-26-5, Chloroaniline 27134-27-6, Dichloroaniline  
 27137-85-5, Dichlorophenyltrichlorosilane 27152-57-4 27176-87-0,  
 Dodecylbenzenesulfonic acid 27195-67-1, Dimethylcyclohexane 27215-10-7  
 27236-46-0, Isohexene 27254-36-0, Nitronaphthalene 27458-20-4,  
 Butyltoluene 27978-54-7, Hydrazine perchlorate 27986-95-4  
 27987-06-0, Trifluoroethane 28260-61-9, Trinitrochlorobenzene  
 28300-74-5, Antimony potassium tartrate 28324-52-9, Pinane hydroperoxide  
 28479-22-3 28653-16-9 28679-16-5, Trimethylhexamethylenediisocyanate  
 28805-86-9, Butylphenol 29191-52-4, Anisidine 29306-57-8 29790-52-1,  
 Nicotine salicylate 29903-04-6 29965-97-7, Cyclooctadiene  
 30236-29-4, Sucrose octanitrate 30525-89-4, Paraformaldehyde  
 30553-04-9, Naphthylthiourea 30586-10-8, Dichloropentane 30586-18-6,  
 Pentamethylheptane 31058-64-7 31212-28-9, Nitrobenzenesulfonic acid  
 33453-96-2 33864-17-4 34216-34-7, Trimethylcyclohexylamine  
 35296-72-1, Butanol 35860-50-5, Trinitrobenzoic acid 35860-51-6,  
 Dinitroresorcinol 35884-77-6, Xylol bromide 36472-34-1, Chloropropene  
 37020-93-2, Mercury cyanide (Hg(CN)) 37187-22-7, Acetyl acetone peroxide  
 37206-20-5, Methyl isobutyl ketone peroxide 37273-91-9, Metaldehyde  
 37320-91-5, Mercury iodide 37368-10-8, Aluminum vanadium oxide  
 38139-71-8, Bromide chloride 38232-63-2, Mercurous azide 38483-28-2,  
 Methylene glycol dinitrate 39377-49-6, Copper cyanide 39377-56-5, Lead  
 sulfide 39404-03-0, Magnesium silicide 39409-64-8, TVOPA 39432-81-0  
 39455-80-6, Ammonium sodium vanadium oxide 39990-99-3, Lithium acetylde  
 ethylenediamine complex 40058-87-5, Isopropyl-2-chloropropionate  
 41195-19-1 41587-36-4, Chloronitroaniline 42296-74-2, Hexadiene

43133-95-5, Methylpentane 50815-73-1 50874-93-6 51006-59-8  
 51023-22-4, Trichlorobutene 51064-12-1 51312-23-3, Mercury bromide  
 51317-24-9, Lead nitroresorcinate 51325-42-9, Copper selenite  
 51845-86-4, Ethyl borate 52181-51-8 53014-37-2, Tetranitroaniline  
 53408-91-6, Mercury thiocyanate 53422-49-4 53569-62-3 53839-08-0  
 53906-68-6 54141-09-2, 1,4,-Butynediol 54413-15-9, Tritonal  
 54727-89-8 54958-71-3 55510-04-8, Dinitroglycoluril 55810-17-8  
 56929-36-3 56960-91-9 57607-37-1, Octolite 58164-88-8, Antimony  
 lactate 58499-37-9

RL: ADV (Adverse effect, including toxicity); PEP (Physical, engineering  
 or chemical process); BIOL (Biological study); PROC (Process)  
 (packaging and transport of, stds. for)

IT 58933-55-4 59753-21-8 59917-23-6 60168-33-4 60616-74-2, Magnesium  
 hydride 60869-68-3 60999-18-0 61061-91-4 61878-56-6 63085-06-3  
 63283-80-7, Dichloroisopropyl ether 63597-41-1, Octadiene 63885-01-8  
 63907-41-5 63937-14-4 63938-10-3, Chlorotetrafluoroethane 63988-31-8  
 64173-96-2 64973-06-4, Arsenic bromide 66634-68-2 67632-66-0  
 68833-55-6, Mercury acetylde (Hg(C<sub>2</sub>H)) 68848-64-6 68975-47-3,  
 Isoheptene 69523-06-4, Ferrocenium 69782-73-6 70027-50-8, Copper  
 selenate 70042-58-9, tert-Butylcyclohexylchloroformate 70268-38-1  
 70268-40-5 70281-33-3 70288-87-8 70288-89-0 70399-13-2, Lithium  
 ferrosilicon 72672-48-1 73506-32-8, Hydrazine selenate 76080-77-8  
 77851-23-1 78369-83-2 79869-58-2, Propanethiol 81228-87-7,  
 Cyclobutylchloroformate 82280-63-5 83267-52-1 84002-64-2  
 87686-42-8 90920-71-1 95332-73-3 98130-51-9 98205-29-9  
 100920-70-5 102437-81-0 105185-95-3 105554-30-1 109259-85-0  
 118833-38-8 **125227-17-0** 127795-79-3, Ammonium arsenate  
 131566-30-8, Potassium phosphide 132052-03-0, Pesticide S 134009-81-7,  
 Fulminating platinum 134010-02-9, Fulminating silver 134115-62-1  
 134115-63-2, Piperazinedipropylamine 134115-64-3 134115-65-4  
 134115-66-5 134115-68-7 134115-69-8 134115-70-1 134115-70-1D,  
 salts 134115-71-2 134115-72-3 134115-73-4 134115-74-5  
 134115-75-6 134115-76-7 134140-03-7 134140-11-7 134170-48-2  
 134191-17-6, Azaurolic acid 134191-62-1 134206-87-4 134206-88-5,  
 Sodium chlorate-dinitrotoluene mixture 134206-89-6 134207-07-1  
 134226-92-9 134265-01-3 134282-14-7, Ammonium fulminate 134282-15-8  
 134282-16-9, 5-Azido-1-hydroxytetrazole 134282-17-0 134282-18-1  
 134282-19-2 134282-20-5 134282-21-6 134282-23-8,  
 1,9-Dinitroxypentamethylene-2,4,6,8-tetramine 134282-24-9 134282-25-0  
 134282-26-1 134282-27-2 134282-28-3 134282-30-7 134282-30-7D,  
 salts 134282-31-8 134282-34-1 134282-35-2 134282-37-4  
 134282-38-5 134282-39-6 134282-40-9 134282-41-0 134282-42-1,  
 2,4,6-Trinitrophenyl guanidine 134282-43-2 134293-21-3 134293-22-4  
 134293-23-5 134293-24-6, 2,3,5,6-Tetranitroso-1,4-dinitrobenzene  
 134309-18-5 134318-55-1 134318-56-2 134356-41-5 134884-20-1,  
 Aluminum magnesium phosphide 135072-82-1 135099-37-5 135991-25-2,  
 Galactan trinitrate 135991-28-5 135991-41-2 135991-57-0

RL: ADV (Adverse effect, including toxicity); PEP (Physical, engineering  
 or chemical process); BIOL (Biological study); PROC (Process)  
 (packaging and transport of, stds. for)

IT 78-11-5P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (prepn. of)

IT **110-02-1, Thiophene 125227-17-0**  
 RL: ADV (Adverse effect, including toxicity); PEP (Physical, engineering  
 or chemical process); BIOL (Biological study); PROC (Process)  
 (packaging and transport of, stds. for)

RN 110-02-1 HCAPLUS

CN Thiophene (8CI, 9CI) (CA INDEX NAME)

S

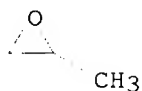
RN 125227-17-0 HCAPLUS

CN Oxirane, methyl-, mixt. with oxirane (9CI) (CA INDEX NAME)

CM 1

CRN 75-56-9

CMF C3 H6 O



CM 2

CRN 75-21-8

CMF C2 H4 O



L56 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1990:140522 HCAPLUS

DN 112:140522

TI Polyoxyalkylene-substituted chromophore-colored thermoplastic resin compositions

IN Baumgartner, Alan S.; Moore, Patrick D.; VanDahm, Richard A.

PA Milliken Research Corp., USA

SO U.S., 12 pp. Cont.-in-part of U.S. 4,732,570.

CODEN: USXXAM

DT Patent

LA English

IC ICM D06P003-00

ICS D06P005-13; D06P003-79; D06P003-24

NCL 008506000

CC 37-6 (Plastics Manufacture and Processing)

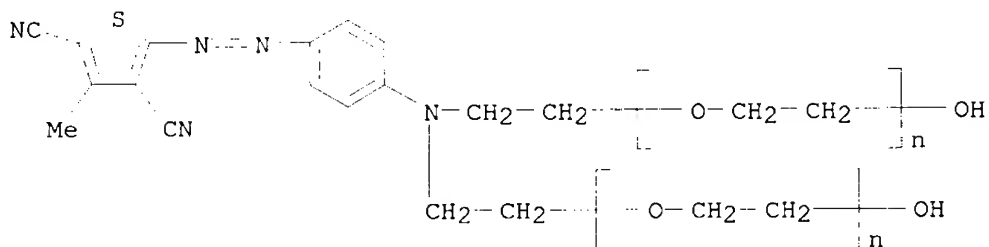
Section cross-reference(s): 41

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4812141	A	19890314	US 1988-169568	19880317
	US 4640690	A	19870203	US 1985-775614	19850913
	US 4732570	A	19880322	US 1986-877056	19860623
PRAI	US 1985-775614		19850913		
	US 1986-877056		19860623		

- AB The title compns., with good migration resistance, are prepd. by mixing thermoplastic resins, solvents, and colorants in the form of polyalkyleneoxy-substituted chromophores and removing the solvents by evapn. 2-Chloro-4-(methylsulfone)aniline 165.4, 70% H2SO4 205.5, water 535, 2-ethylhexanol 1.6, and 40% nitrosylsulfuric acid 370.5 parts were stirred at 0.degree., mixed with 10 parts sulfamic acid to destroy excess nitrite, mixed with ethoxylate (d.p. 10) of aniline in water, neutralized with 50% aq. NaOH, and purified to give a colorant with av. mol. wt. 749, which (0.58 g) was mixed with 1000 g Profax 6301 (with min. amt. of MeOH) and injection molded to give a 50-mil plaque having acetone extd. (8 h) 0.9%, vs. 14.9 for a plaque contg. 0.40 g Solvent Blue 130.
- ST coloring polypropylene polyoxyalkylene substituted chromophore; antimigration polyoxyethylene substituted diazo compd
- IT Polyamides, uses and miscellaneous  
Polycarbonates, uses and miscellaneous  
Polyesters, uses and miscellaneous  
RL: USES (Uses)  
(colorants for, polyoxyalkylene-substituted chromophores as, migration-resistant)
- IT Coloring materials  
(polyoxyalkylene-substituted chromophores, prepn. of, migration-resistant, for thermoplastic resins)
- IT **Inks**  
(thermoplastic resin-based, colorants for, polyoxyalkylene-substituted chromophores as)
- IT 9002-85-1 9002-86-2, Poly(vinyl chloride) 9002-88-4, Polyethylene 9003-07-0 9003-29-6 9003-53-6 9003-56-9, ABS polymer 9004-36-8 9004-39-1 9010-79-1, Profax SA-841 9011-14-7 24936-68-3, Merlon M 40HRF-1112, uses and miscellaneous 24968-12-5, Poly(butylene terephthalate) 25038-54-4, Capron 8202, uses and miscellaneous 25640-14-6 26062-94-2, Butylene glycol-terephthalic acid copolymer 107874-03-3, Dowlex 2517  
RL: USES (Uses)  
(colorants for, polyoxyalkylene-substituted chromophores as, migration-resistant)
- IT 103779-95-9 123902-25-0  
RL: USES (Uses)  
(colorants, for thermoplastic resin-based **ink** compns.)
- IT 62196-04-7P 86356-62-9P 103779-96-0P 107830-95-5P 107830-97-7P  
**107830-98-8P 107874-22-6P 107874-23-7P**  
113755-71-8P 123851-90-1P 123902-23-8P 123924-22-1P 123944-63-8P  
124124-12-5P 124124-13-6P 124124-14-7P 124124-17-0P  
RL: PREP (Preparation)  
(colorants, prepn. of, for thermoplastic resin compns., migration-resistant)
- IT **107830-98-8P 107874-22-6P 107874-23-7P**  
RL: PREP (Preparation)  
(colorants, prepn. of, for thermoplastic resin compns., migration-resistant)
- RN 107830-98-8 HCAPLUS
- CN Poly(oxy-1,2-ethanediyl), .alpha.,.alpha.'-[[[4-[(3,5-dicyano-4-methyl-2-thienyl)azo]phenyl]imino]di-2,1-ethanediyl]bis[.omega.-hydroxy- (9CI) (CA INDEX NAME)

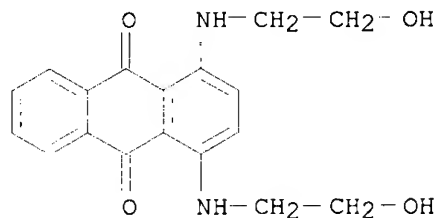




RN 107874-22-6 HCAPLUS  
 CN Oxirane, methyl-, polymer with oxirane, ether with 1,4-bis[(2-hydroxymethylethyl)amino]-9,10-anthracenedione (2:1), dibutyl ether (9CI)  
 (CA INDEX NAME)

CM 1

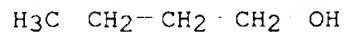
CRN 177966-41-5  
 CMF C20 H22 N2 O4  
 CCI IDS



2 ( D1-Me )

CM 2

CRN 71-36-3  
 CMF C4 H10 O



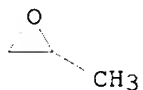
CM 3

CRN 9003-11-6  
 CMF (C3 H6 O . C2 H4 O) x  
 CCI PMS

CM 4

CRN 75-56-9

CMF C3 H6 O



CM 5

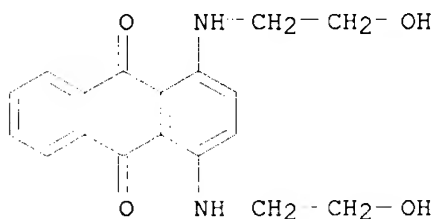
CRN 75-21-8  
CMF C2 H4 O



RN 107874-23-7 HCAPLUS  
CN Oxirane, methyl-, polymer with oxirane, ether with 1,4-bis[(2-hydroxymethylethyl)amino]-9,10-anthracenedione (2:1), dimethyl ether (9CI)  
(CA INDEX NAME)

CM 1

CRN 177966-41-5  
CMF C20 H22 N2 O4  
CCI IDS



2 ( D1--Me )

CM 2

CRN 67-56-1  
CMF C H4 O

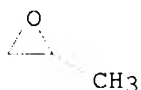
H3C OH

CM 3

CRN 9003-11-6  
CMF (C3 H6 O . C2 H4 O)x  
CCI PMS

CM 4

CRN 75-56-9  
CMF C3 H6 O



CM 5

CRN 75-21-8  
CMF C2 H4 O



L56 ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1984:53117 HCAPLUS

DN 100:53117

TI Aqueous dye preparations containing water-insoluble to difficultly soluble dyes

IN Becker, Carl

PA Ciba-Geigy A.-G. , Switz.

SO Patentschrift (Switz.), 20 pp.

CODEN: SWXXAS

DT Patent

LA German

IC C09B067-40; C09K011-06

CC 40-6 (Textiles)

Section cross-reference(s): 41

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CH 638239	A	19830915	CH 1978-11446	19781107
PRAI	CH 1978-11446		19781107		

AB The title compns., esp. useful for prepn. of textile printing pastes or in transfer printing, comprise H2O .gtoreq.10, finely dispersed dye 10-25, anionic dispersing agent 0.1-5, ethylene oxide-olefin oxide copolymer (.gtoreq.65 wt.% ethylene oxide, mol. wt. >12,000) 0.5-5 wt.%, and other optional additives. The compns. are storage stable at 25-60.degree.. Thus, electrolyte-free 1-amino-4-anilino-2-cyanoanthraquinone [32571-82-7] 400, lignosulfonic acid (I) (sulfonated, fractionated kraft lignin) 10, and 80:20 ethylene oxide-propylene oxide copolymer (II) [ **9003-11-6**] (mol. wt. 16,500) 20 parts were dispersed in H2O 398 contg. propylene glycol 170 and preservative 2 parts, milled to <5 .mu. particle size, mixed with 0.1-0.2 wt.% xanthan gum, and stirred to give a compn. with viscosity 500-1000 cP and pH 9.4. When 30 parts I was used in

place of the 10:20 I-II mixt. the viscosity of the compn. increased after only 3 days at room temp.; at temps. >40.degree. the compn. gelled in 12 h.

- ST disperse dye aq dispersion stable; water insoluble dye dispersion stable; polyethylene polypropylene glycol dispersant; lignosulfonic acid dispersant; printing paste dye dispersion; transfer printing **ink** dye dispersion
- IT Dispersing agents  
(ethylene oxide-propylene oxide copolymers, aq. dye dispersions contg., storage-stable)
- IT Thickening agents  
(poly(acrylic acid), textile printing pastes contg., aq. dye dispersions for storage-stable)
- IT Dyes  
Dyes, anthraquinone  
Dyes, azo  
(disperse, aq. dispersions of, storage-stable)
- IT Textile printing  
(pastes, aq. dye dispersions for prepn. of, storage-stable)
- IT Textile printing  
(transfer, **inks** for, aq. dye dispersions for prepn. of, storage-stable)
- IT Dyes  
(vat, aq. dispersions of, storage-stable)
- IT Fluorescent brighteners  
(water-insol., aq. dispersions of, storage-stable)
- IT 57-55-6, uses and miscellaneous  
RL: USES (Uses)  
(aq. dye dispersions contg., storage-stable, for textile printing pastes)
- IT 8062-15-5D, salt **9003-11-6**  
RL: USES (Uses)  
(dispersing agents, aq. dye dispersions contg., storage-stable)
- IT 58213-06-2  
RL: USES (Uses)  
(dispersing agents, aq. fluorescent brightener dispersions contg., storage-stable)
- IT 27425-55-4  
RL: USES (Uses)  
(dye, aq. dispersions of, storage-stable)
- IT 81-48-1 1833-72-3 2475-44-7 2872-48-2 2872-52-8 3180-81-2  
4395-65-7 5124-25-4 7576-65-0 12217-80-0 13418-49-0 17418-58-5  
19660-72-1 27425-55-4 32571-82-7 58104-49-7 70210-09-2  
70210-10-5 88520-00-7 88520-01-8  
RL: USES (Uses)  
(dye, aq. dispersions of, storage-stable, for textile printing)
- IT **2866-43-5**  
RL: USES (Uses)  
(fluorescent brightener, aq. dispersion of, storage-stable)
- IT 9003-01-4  
RL: USES (Uses)  
(thickening agents, textile printing pastes contg., aq. dye dispersions for storage-stable)
- IT 128-58-5  
RL: USES (Uses)  
(vat dye, aq. dispersion of, storage-stable)
- IT 116-71-2D, brominated 130-20-1 53460-09-6  
RL: USES (Uses)

(vat dye, aq. dispersion of, storage-stable, for textile printing pastes)

IT **9003-11-6**

RL: USES (Uses)

(dispersing agents, aq. dye dispersions contg., storage-stable)

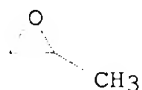
RN 9003-11-6 HCAPLUS

CN Oxirane, methyl-, polymer with oxirane (9CI) (CA INDEX NAME)

CM 1

CRN 75-56-9

CMF C3 H6 O



CM 2

CRN 75-21-8

CMF C2 H4 O



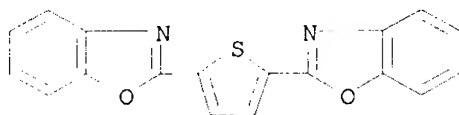
IT **2866-43-5**

RL: USES (Uses)

(fluorescent brightener, aq. dispersion of, storage-stable)

RN 2866-43-5 HCAPLUS

CN Benzoxazole, 2,2'-(2,5-thiophenediyl)bis- (7CI, 8CI, 9CI) (CA INDEX NAME)



=> D QUE

L26	1	SEA	FILE=REGISTRY	ABB=ON	515857-23-5/BI
L27	375045	SEA	FILE=REGISTRY	ABB=ON	16.145/RID
L28	18356	SEA	FILE=REGISTRY	ABB=ON	75-56-9/CRN
L29	22522	SEA	FILE=REGISTRY	ABB=ON	75-21-8/CRN
L30	14494	SEA	FILE=REGISTRY	ABB=ON	L28 AND L29
L31	29	SEA	FILE=REGISTRY	ABB=ON	L30 AND L27
L32	1	SEA	FILE=REGISTRY	ABB=ON	"VIOLET X 80LT"/CN
L33	1	SEA	FILE=REGISTRY	ABB=ON	"VIOLET TONER PTMA 55-2925"/CN
L34	2	SEA	FILE=REGISTRY	ABB=ON	VIOLET X?/CN
L35	2	SEA	FILE=HCAPLUS	ABB=ON	L26
L36	10	SEA	FILE=HCAPLUS	ABB=ON	L31
L37	3960	SEA	FILE=HCAPLUS	ABB=ON	L32 OR L33 OR L34

L38 198 SEA FILE=HCAPLUS ABB=ON L37 AND (TONER? OR INK#)  
 L39 73 SEA FILE=HCAPLUS ABB=ON L38 AND COMPOSITION?  
 L40 14 SEA FILE=HCAPLUS ABB=ON L39 AND PIGMENT?  
 L41 1 SEA FILE=HCAPLUS ABB=ON L39 AND (HUE(3A)ANGLE? OR BRIGHTNESS  
 OR LIGHT(3A)ABSORP?)  
 L42 2 SEA FILE=HCAPLUS ABB=ON (L35 OR L36) AND (TONER# OR INK#)  
 L43 0 SEA FILE=HCAPLUS ABB=ON (L35 OR L36) AND (HUE(3A)ANGLE? OR  
 BRIGHTNESS OR LIGHT(3A)ABSORP?)  
 L44 2 SEA FILE=HCAPLUS ABB=ON L42 OR L43  
 L45 15 SEA FILE=HCAPLUS ABB=ON L40 OR L41  
 L46 347382 SEA FILE=REGISTRY ABB=ON 16.145.3/RID  
 L47 347382 SEA FILE=REGISTRY ABB=ON L46 OR L46  
 L49 177386 SEA FILE=REGISTRY RAN=(,247262-99-0) ABB=ON L46 OR L46  
 L50 169996 SEA FILE=REGISTRY ABB=ON L47 NOT L49  
 L51 27634 SEA FILE=HCAPLUS ABB=ON L30  
 L52 85504 SEA FILE=HCAPLUS ABB=ON L49  
 L53 9074 SEA FILE=HCAPLUS ABB=ON L50  
 L54 128 SEA FILE=HCAPLUS ABB=ON L51 AND (L52 OR L53)  
 L55 7 SEA FILE=HCAPLUS ABB=ON L54 AND INK#  
 L56 5 SEA FILE=HCAPLUS ABB=ON (L55 OR L44) NOT L44  
 L57 15 SEA FILE=HCAPLUS ABB=ON L45 NOT (L56 OR L44)

=> D L57 BIB ABS HITIND HITSTR

L57 ANSWER 1 OF 15 HCAPLUS COPYRIGHT 2003 ACS on STN  
 AN 2003:525539 HCAPLUS  
 DN 139:86790  
 TI Aqueous **ink-jet ink compositions**  
 IN Kataoka, Shuichi; Kubota, Kazuhide; Watanabe, Kazuaki; Takemoto, Kiyohiko  
 PA Seiko Epson Corp., Japan  
 SO Jpn. Kokai Tokkyo Koho, 15 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003192956	A2	20030709	JP 2001-396126	20011227
	WO 2003055953	A1	20030710	WO 2002-JP13853	20021227
	W: CN, US				
	RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR				
PRAI	JP 2001-396126	A	20011227		
	JP 2001-398518	A	20011227		
	JP 2001-398524	A	20011227		
AB	Title compns., having good adhesion and gloss without impairing discharge and storage stability, contain colorants, wetting agents, and resins prepd. from ethylenic unsatd. carboxylic acids and other monomers in the presence of OH-contg. water-sol. polymers or polymerizable surfactants to form polymers with acid value of .ltoreq.40 and a pH adjusted by inorg. bases. An aq. <b>ink</b> contg. C.I. <b>pigment</b> red 122 dispersion, Et acrylate-Me acrylate-methacrylic acid copolymer (prepd. in presence of polyvinyl alc.) Na salt, glycerol, ethylene glycol, triethanolamine, and 2-pyrrolidone showed viscosity change of <0.3 cPs after 1 wk at 70.degree. and gave prints with good adhesion to substrates and high gloss.				
IC	ICM C09D011-00				

ICS B41J002-01; B41M005-00

- CC 42-12 (Coatings, Inks, and Related Products)
- ST storage stability adhesion aq **ink** methacrylic acid polymer salt;  
gloss adhesion aq colored **ink** methacrylic acid polymer salt
- IT Glycols, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(1,2-, alkane, penetrating agents; unsatd. acid-based polymer salt- and  
wetting agent-contg. aq. colored **ink-jet inks** with  
high storage stability, adhesion, and gloss)
- IT Ionomers  
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or  
engineered material use); PREP (Preparation); USES (Uses)  
(acrylic; unsatd. acid-based polymer salt- and wetting agent-contg. aq.  
colored **ink-jet inks** with high storage stability,  
adhesion, and gloss)
- IT Polyethers, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(di-Me siloxane-, BYK 348, penetrating agents; unsatd. acid-based  
polymer salt- and wetting agent-contg. aq. colored **ink-jet**  
**inks** with high storage stability, adhesion, and gloss)
- IT Polysiloxanes, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(di-Me, polyether-, BYK 348, penetrating agents; unsatd. acid-based  
polymer salt- and wetting agent-contg. aq. colored **ink-jet**  
**inks** with high storage stability, adhesion, and gloss)
- IT Glycols, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(ethers, penetrating agents; unsatd. acid-based polymer salt- and  
wetting agent-contg. aq. colored **ink-jet inks** with  
high storage stability, adhesion, and gloss)
- IT Ethers, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(glycol, penetrating agents; unsatd. acid-based polymer salt- and  
wetting agent-contg. aq. colored **ink-jet inks** with  
high storage stability, adhesion, and gloss)
- IT **Inks**  
(jet-printing; unsatd. acid-based polymer salt- and wetting  
agent-contg. aq. colored **ink-jet inks** with high  
storage stability, adhesion, and gloss)
- IT Alkali metal hydroxides  
Alkaline earth hydroxides  
RL: TEM (Technical or engineered material use); USES (Uses)  
(neutralizers for unsatd. acid polymers; unsatd. acid-based polymer  
salt- and wetting agent-contg. aq. colored **ink-jet**  
**inks** with high storage stability, adhesion, and gloss)
- IT Alcohols, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(polyhydric, wetting agents; unsatd. acid-based polymer salt- and  
wetting agent-contg. aq. colored **ink-jet inks** with  
high storage stability, adhesion, and gloss)
- IT Surfactants  
(polymerizable, manuf. of unsatd. acid-based polymers in presence of;  
unsatd. acid-based polymer salt- and wetting agent-contg. aq. colored  
**ink-jet inks** with high storage stability, adhesion,  
and gloss)
- IT Amines, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(tertiary, wetting agents; unsatd. acid-based polymer salt- and wetting

- agent-contg. aq. colored **ink-jet inks** with high storage stability, adhesion, and gloss)
- IT Penetrating agents  
**Pigments**, nonbiological  
Wetting agents  
(unsatd. acid-based polymer salt- and wetting agent-contg. aq. colored **ink-jet inks** with high storage stability, adhesion, and gloss)
- IT Carbon black, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(unsatd. acid-based polymer salt- and wetting agent-contg. aq. colored **ink-jet inks** with high storage stability, adhesion, and gloss)
- IT Carbohydrates, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(wetting agents; unsatd. acid-based polymer salt- and wetting agent-contg. aq. colored **ink-jet inks** with high storage stability, adhesion, and gloss)
- IT 9002-89-5, Poly(vinyl alcohol)  
RL: TEM (Technical or engineered material use); USES (Uses)  
(manuf. of unsatd. acid-based polymers in presence of; unsatd. acid-based polymer salt- and wetting agent-contg. aq. colored **ink-jet inks** with high storage stability, adhesion, and gloss)
- IT 7664-80-4, Octyl thioglycolate  
RL: TEM (Technical or engineered material use); USES (Uses)  
(mol. wt. adjuster; unsatd. acid-based polymer salt- and wetting agent-contg. aq. colored **ink-jet inks** with high storage stability, adhesion, and gloss)
- IT 9014-85-1, Surfynol 465 195629-22-2, Olfine STG  
RL: TEM (Technical or engineered material use); USES (Uses)  
(penetrating agents; unsatd. acid-based polymer salt- and wetting agent-contg. aq. colored **ink-jet inks** with high storage stability, adhesion, and gloss)
- IT 555099-22-4P, Ethyl acrylate-methacrylic acid-methyl acrylate copolymer sodium salt  
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(unsatd. acid-based polymer salt- and wetting agent-contg. aq. colored **ink-jet inks** with high storage stability, adhesion, and gloss)
- IT 81-77-6, C.I. **Pigment** blue 60 147-14-8, C.I. **Pigment** blue 15:3 980-26-7, C.I. **Pigment** red 122 1047-16-1, C.I. **Pigment** violet 19 1103-39-5, C.I. **Pigment** red 49:2 1325-82-2, C.I. **Pigment** violet 3 1328-53-6, C.I. **Pigment** green 7 2379-75-1, C.I. **Pigment** violet 38 3049-71-6, C.I. **Pigment** red 178 3089-17-6, C.I. **Pigment** red 202 3573-01-1, C.I. **Pigment** red 209 4051-63-2, C.I. **Pigment** red 177 4424-06-0, C.I. **Pigment** orange 43 5045-40-9, C.I. **Pigment** yellow 109 5462-29-3, C.I. **Pigment** violet 36 5590-18-1, C.I. **Pigment** yellow 110 6358-31-2, C.I. **Pigment** yellow 74 6535-46-2, C.I. **Pigment** red 112 6655-84-1, C.I. **Pigment** red 17 12225-08-0, C.I. **Pigment** violet 32 12236-62-3, C.I. **Pigment** orange 36 14302-13-7, C.I. **Pigment** green 36 30125-47-4, C.I. **Pigment** yellow 138 54660-00-3, C.I. **Pigment** red 255 61847-48-1, C.I. **Pigment** red 188 79953-85-8, C.I. **Pigment** yellow 128



88949-33-1, C.I. **Pigment** red 264 215247-95-3, C.I.**Pigment** violet 23

RL: TEM (Technical or engineered material use); USES (Uses)

(unsatd. acid-based polymer salt- and wetting agent-contg. aq. colored **ink-jet inks** with high storage stability, adhesion, and gloss)IT 50-70-4, Sorbit, uses 56-81-5, Glycerol, uses 69-65-8, Mannitol  
102-71-6, Triethanolamine, uses 107-21-1, Ethylene glycol, uses  
111-46-6, Diethylene glycol, uses 616-45-5, 2-Pyrrolidone 8013-17-0,  
HS 500

RL: TEM (Technical or engineered material use); USES (Uses)

(wetting agents; unsatd. acid-based polymer salt- and wetting  
agent-contg. aq. colored **ink-jet inks** with high  
storage stability, adhesion, and gloss)IT **1325-82-2**, C.I. **Pigment** violet 3

RL: TEM (Technical or engineered material use); USES (Uses)

(unsatd. acid-based polymer salt- and wetting agent-contg. aq. colored  
**ink-jet inks** with high storage stability, adhesion,  
and gloss)

RN 1325-82-2 HCAPLUS

CN C.I. Basic Violet 1, molybdatetungstatephosphate (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

=&gt; D L57 BIB ABS HITIND HITSTR 2-15

L57 ANSWER 2 OF 15 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2002:667396 HCAPLUS

DN 137:202790

TI Water washable lithographic newspaper printing **inks** containing  
modified soybean oil based resinsIN Weisbecker, Carl S.; Krech, John H.; Durand, Richard R., Jr.; Webb,  
Michelle J.; Warren, Robert M.

PA Sun Chemical Corporation, USA

SO U.S., 7 pp.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6444021	B1	20020903	US 2000-574770	20000519
PRAI	US 2000-574770		20000519		

AB The present invention relates to a water washable lithog. newspaper  
**ink** comprising a modified soybean oil based resin, **pigment**  
, an acid neutralizing agent, a humectant, and optionally water and a  
rewetting agent, preferably hydroxyethyl ethylene urea. Thus, a  
water-based color **ink compn.** comprising Phthalo Blue  
**Pigment** 10.9, varnish comprising alkali refined soybean oil 79.9,  
maleic anhydride 10, Carbowax 400 10, and Fascat 4100 0.1 parts 47.6,  
water 17, glycerol 5.0, monoethanolamine 2.4, hydroxyethyl ethylene urea  
9.4, Laponite RD clay 1.2, and Fancol VB 6.5 was applied on a printing  
press giving sharp, well defined, dry images of excellent print quality.

IC ICM C09D011-02

NCL 106031660

CC 42-12 (Coatings, Inks, and Related Products)

ST water washable lithog newspaper printing **ink**; soybean oil

**ink compn** Blue **Pigment** monoethanolamine  
glycerol

IT Carbon black, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(Black Pearls 420; water washable lithog. newspaper printing  
**ink** compns.)

IT **Inks**  
(lithog.; water washable lithog. newspaper printing **ink**  
compns.)

IT Soybean oil  
RL: POF (Polymer in formulation); TEM (Technical or engineered material  
use); USES (Uses)  
(modified resins; water washable lithog. newspaper printing **ink**  
compns.)

IT **Inks**  
(printing; water washable lithog. newspaper printing **ink**  
compns.)

IT Humectants  
**Pigments**, nonbiological  
(water washable lithog. newspaper printing **ink** compns.)

IT Polyoxyalkylenes, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(water washable lithog. newspaper printing **ink** compns.)

IT 105-59-9, n-Methyldiethanolamine 141-43-5, Monoethanolamine, uses  
1310-73-2, Sodium hydroxide, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(acid neutralizing agent; water washable lithog. newspaper printing  
**ink** compns.)

IT 2273-43-0, Fascat 4100  
RL: CAT (Catalyst use); USES (Uses)  
(catalyst; water washable lithog. newspaper printing **ink**  
compns.)

IT 56-81-5, Glycerol, uses 57-55-6, Propylene glycol, uses 112-27-6,  
Triethylene glycol 25618-55-7, Polyglycerol 51555-31-8, Pentaglycerin  
56090-54-1, Triglycerin 56491-53-3, Tetraglycerin 59113-36-9,  
Diglycerin  
RL: TEM (Technical or engineered material use); USES (Uses)  
(humectant; water washable lithog. newspaper printing **ink**  
compns.)

IT 203588-95-8, Fancol VB  
RL: POF (Polymer in formulation); TEM (Technical or engineered material  
use); USES (Uses)  
(water washable lithog. newspaper printing **ink** compns.)

IT 108-31-6, Maleic anhydride, uses 147-14-8, C.I. **Pigment** Blue  
15:1 471-34-1, **Pigment** White 18, uses 574-93-6, C.I.  
**Pigment** Blue 16 1314-98-3, **Pigment** White 7, uses  
1324-76-1, **Pigment** Blue 61 1325-82-2, C.I.  
**Pigment** Violet 3 1325-87-7, **Pigment** Blue 1  
1328-53-6, **Pigment** Green 7 1657-16-5, **Pigment** Yellow  
4 2092-56-0, **Pigment** Red 53 2425-85-6, **Pigment** Red  
3 2512-29-0, **Pigment** Yellow 1 2786-76-7, **Pigment**  
Red 170 2814-77-9, **Pigment** Red 4 3520-72-7, **Pigment**  
Orange 13 3564-21-4, **Pigment** Red 48 4106-67-6,  
**Pigment** Yellow 5 4531-49-1, **Pigment** Yellow 17  
5102-83-0, **Pigment** Yellow 13 5280-68-2, **Pigment** Red  
146 5468-75-7, **Pigment** Yellow 14 5567-15-7, **Pigment**  
Yellow 83 6041-94-7, **Pigment** Red 2 6358-37-8,  
**Pigment** Yellow 55 6358-85-6, **Pigment** Yellow 12

6410-32-8, **Pigment** Red 12 6410-35-1, **Pigment** Red 10  
 6417-46-5, C.I. **Pigment** Blue 56 6486-23-3, **Pigment**  
 Yellow 3 6505-28-8, **Pigment** Orange 16 6528-34-3, C.I.  
**Pigment** Yellow 65 7023-61-2, **Pigment** Red 48:2  
 7585-41-3, **Pigment** Red 48:1 8005-37-6, **Pigment** White  
 26 9004-74-4, Carbowax 350 12213-69-3, **Pigment** Green 2  
 12224-98-5, **Pigment** Red 81 12225-06-8, C.I. **Pigment**  
 Red 176 12225-18-2, **Pigment** Yellow 97 12656-85-8,  
**Pigment** Red 104 13463-67-7, **Pigment** White 6, uses  
 13515-40-7, **Pigment** Yellow 73 14302-13-7, **Pigment**  
 Green 36 17741-63-8, **Pigment** Violet 37 17852-98-1,  
**Pigment** Red 57:2 25322-68-3, Carbowax 400 32432-45-4, C.I.  
**Pigment** Yellow 98 57455-37-5, **Pigment** Blue 29  
 63467-26-5, **Pigment** Orange 46 215247-95-3, **Pigment**  
 Violet 23

RL: TEM (Technical or engineered material use); USES (Uses)  
 (water washable lithog. newspaper printing **ink** compns.)

IT 1325-82-2, C.I. **Pigment** Violet 3

RL: TEM (Technical or engineered material use); USES (Uses)  
 (water washable lithog. newspaper printing **ink** compns.)

RN 1325-82-2 HCAPLUS

CN C.I. Basic Violet 1, molybdatetungstatephosphate (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L57 ANSWER 3 OF 15 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2001:270430 HCAPLUS

DN 134:296659

TI Highly sensitive photoinitiators and photocurable resin  
**compositions**

IN Ogata, Tomonari

PA Showa Denko K. K., Japan

SO Jpn. Kokai Tokkyo Koho, 11 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

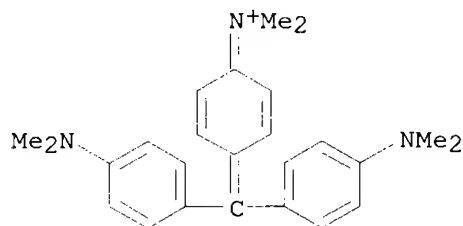
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001106712	A2	20010417	JP 1999-287622	19991008
PRAI	JP 1999-287622		19991008		

OS MARPAT 134:296659

AB The compns., useful for photoresists, photocurable **inks** and  
 adhesives, etc., contain (A) R1R2R3R4B-.cntdot.X+ (R1-R4 = alkyl, aryl,  
 aralkyl, alkenyl, heterocyclic or alicyclic group; .gtoreq.1 of R1-R4 =  
 (substituted) naphthyl; X+ = ammonium, (oxo)sulfonium, pyridinium,  
 phosphonium, oxonium, or iodonium cation), (B) sensitizers with  
**light absorption** wavelength .gtoreq.300 nm, (C) triazine  
 compds., and (D) polymerizable unsatd. compds. Thus, a **compn.**  
 comprising (a) initiators contg. tetrabutylammonium  
 butyltrinitrophenylborate, C.I. Basic Yellow 21, and 2,4,6-  
 tris(trichloromethyl)-s-triazine, (b) curable compns. contg. isobornyl  
 acrylate, iso-Bu acrylate, pentaerythritol triacrylate, and Ripoxy VR 77  
 (reactive epoxy resin), and (c) fillers was applied on a glass plate and  
 cured by a light irradsn. energy of 884 mJ/cm<sup>2</sup>.

IC ICM C08F002-50

ICS C08F002-44; C08F291-00; G03F007-004; G03F007-027; G03F007-029;  
G03F007-031; G03F007-032; C09D011-10; C09J004-00; C09J004-06  
CC 37-6 (Plastics Manufacture and Processing)  
Section cross-reference(s): 42, 74  
ST curable epoxy isobornyl isobutyl erythritol acrylate; photoresist  
photocurable **ink** adhesive acrylic polymer; photopolymn catalyst  
butylammonium butylnaphthylborate trichloromethyl triazine  
IT **548-62-9**, Crystal violet 989-38-8, C.I. Basic Red 1 6320-14-5,  
C.I. Basic Red 12 6359-50-8, C.I. Basic Yellow 21  
RL: CAT (Catalyst use); PRP (Properties); USES (Uses)  
(sensitizer; highly sensitive photoinitiators for photocurable resin  
compsns.)  
IT **548-62-9**, Crystal violet  
RL: CAT (Catalyst use); PRP (Properties); USES (Uses)  
(sensitizer; highly sensitive photoinitiators for photocurable resin  
compsns.)  
RN 548-62-9 HCAPLUS  
CN Methanaminium, N-[4-[bis[4-(dimethylamino)phenyl]methylene]-2,5-  
cyclohexadien-1-ylidene]-N-methyl-, chloride (9CI) (CA INDEX NAME)



● Cl<sup>-</sup>

L57 ANSWER 4 OF 15 HCAPLUS COPYRIGHT 2003 ACS on STN  
AN 2000:91850 HCAPLUS  
DN 132:304374  
TI Investigation of ball point pen **inks** by capillary  
electrophoresis (CE) with UV/Vis absorbance and laser induced fluorescence  
detection and Particle Induced X-Ray emission (PIXE)  
AU Vogt, Carla; Becker, Andreas; Vogt, Jurgen  
CS Institute of Analytical Chemistry, University of Leipzig, Germany  
SO Journal of Forensic Sciences (1999), 44(4), 819-831  
CODEN: JFSCAS; ISSN: 0022-1198  
PB American Society for Testing and Materials  
DT Journal  
LA English  
AB In the process of examg. fraudulent documents **ink** anal. is a  
small but important part of the operation of forensic labs. Systematic  
approaches to **ink** comparison and identification have been  
performed by optical methods and various chromatog. techniques. Capillary  
electrophoresis (CE), a relatively new sepn. technique with very high  
resoln. power, and Particle Induced X-Ray Emission (PIXE) were used for  
the anal. of ball point pen **inks**. In comparison to water sol.  
fountain pen **inks**, ball point **inks** are less sol. or

insol. in water and these **inks** contain only few components. The study focused on the optimization of the sepn. of **ink** exts. from paper material of com. available **inks** with respect to resoln. and anal. time. During the method development process different buffers, org. modifiers, and surfactants were tested. Good results were obtained with a 50 mM borate buffer pH 9.0 contg. 50% acetonitrile. Reproducible extn. procedures as well as sepns. enables one to perform the quantification of the **ink** peaks within 1-8% std. deviation for parallel extns. of the same **ink**. Electropherograms of 20 **inks** of various origin showed patterns which were in most cases distinctly different from each other. PIXE measurements with an external proton beam were used to det. the metal **compn.** The ratio of the peak areas for copper and zinc as well as differences in the elemental **compn.** could be used to distinguished between the samples. No coincidence was obsd. between samples hardly distinguishable by electrophoretic sepns. and by PIXE-measurements. Samples with nearly identical metal **compn.** showed different peak pattern in the electropherograms, and nearly identical electrophoretic behavior of two or more samples was accompanied by quite different copper/zinc-ratios or supplementary metals identified by PIXE.

CC 4-2 (Toxicology)

Section cross-reference(s): 9

ST ball point pen **ink** capillary electrophoresis spectrophotometry  
fluorimetry forensic; particle induced X ray emission ball point  
**ink** forensic; PIXE laser induced fluorescence ball point pen  
**ink** forensic; UV visible spectrometry ball point pen **ink**  
forensic

IT Spectrophotometry

(UV/Visible; ball point pen **inks** anal. by capillary  
electrophoresis (CE) with UV/Vis absorbance and laser induced  
fluorescence detection and Particle Induced X-Ray emission (PIXE))

IT Capillary electrophoresis

Dyes

Forensic chemistry

Laser induced fluorescence

PIXE

**Pigments**, nonbiological

Solvents

pH

(ball point pen **inks** anal. by capillary electrophoresis (CE)  
with UV/Vis absorbance and laser induced fluorescence detection and  
Particle Induced X-Ray emission (PIXE))

IT **Inks**

(ball point pen; ball point pen **inks** anal. by capillary  
electrophoresis (CE) with UV/Vis absorbance and laser induced  
fluorescence detection and Particle Induced X-Ray emission (PIXE))

IT Buffers

(borate; ball point pen **inks** anal. by capillary  
electrophoresis (CE) with UV/Vis absorbance and laser induced  
fluorescence detection and Particle Induced X-Ray emission (PIXE))

IT Trace metals

Trace metals

RL: ANT (Analyte); ANST (Analytical study)

(heavy; ball point pen **inks** anal. by capillary  
electrophoresis (CE) with UV/Vis absorbance and laser induced  
fluorescence detection and Particle Induced X-Ray emission (PIXE))

IT Paper

(**ink** extd. from; ball point pen **inks** anal. by

capillary electrophoresis (CE) with UV/Vis absorbance and laser induced fluorescence detection and Particle Induced X-Ray emission (PIXE))

IT Heavy metals  
Heavy metals

RL: ANT (Analyte); ANST (Analytical study)  
(trace; ball point pen **inks** anal. by capillary electrophoresis (CE) with UV/Vis absorbance and laser induced fluorescence detection and Particle Induced X-Ray emission (PIXE))

IT 548-62-9, Crystal violet 587-98-4, Acid yellow 36 2580-56-5, Basic blue 26 7439-89-6, Iron, analysis 7439-92-1, Lead, analysis 7440-02-0, Nickel, analysis 7440-50-8, Copper, analysis 7440-66-6, Zinc, analysis 8004-87-3, Methyl violet 71567-50-5, Synthetic resin SK 92680-42-7, Phtalopal LR 8525 116744-95-7, Astra Blue 6GLL

RL: ANT (Analyte); ANST (Analytical study)  
(ball point pen **inks** anal. by capillary electrophoresis (CE) with UV/Vis absorbance and laser induced fluorescence detection and Particle Induced X-Ray emission (PIXE))

IT 67-56-1, Methanol, uses 67-63-0, 2-Propanol, uses 75-05-8, Acetonitrile, uses 151-21-3, SDS, uses 7732-18-5, Water, uses

RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)  
(ball point pen **inks** anal. by capillary electrophoresis (CE) with UV/Vis absorbance and laser induced fluorescence detection and Particle Induced X-Ray emission (PIXE))

IT 12408-02-5, Hydrogen ion, reactions

RL: RCT (Reactant); RACT (Reactant or reagent)  
(ball point pen **inks** anal. by capillary electrophoresis (CE) with UV/Vis absorbance and laser induced fluorescence detection and Particle Induced X-Ray emission (PIXE))

IT 14213-97-9, Borate

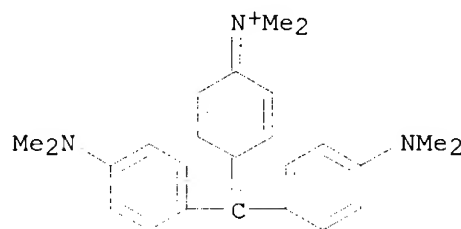
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)  
(buffer; ball point pen **inks** anal. by capillary electrophoresis (CE) with UV/Vis absorbance and laser induced fluorescence detection and Particle Induced X-Ray emission (PIXE))

IT 548-62-9, Crystal violet

RL: ANT (Analyte); ANST (Analytical study)  
(ball point pen **inks** anal. by capillary electrophoresis (CE) with UV/Vis absorbance and laser induced fluorescence detection and Particle Induced X-Ray emission (PIXE))

RN 548-62-9 HCAPLUS

CN Methanaminium, N-[4-[bis[4-(dimethylamino)phenyl]methylene]-2,5-cyclohexadien-1-ylidene]-N-methyl-, chloride (9CI) (CA INDEX NAME)



● Cl<sup>-</sup>

RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L57 ANSWER 5 OF 15 HCAPLUS COPYRIGHT 2003 ACS on STN  
AN 1998:146534 HCAPLUS  
DN 128:210837  
TI Process for preparation of colored **toner** and developer  
**compositions** for enlarged color gamut  
IN Ciccarelli, Roger N.; Bertrand, Jacques C.; Dalal, Edul N.; Blaszkak, Sue  
E.; Natale-Hoffman, Kristen M.; Bayley, Denise R.  
PA Xerox Corp., USA  
SO U.S., 14 pp.  
CODEN: USXXAM  
DT Patent  
LA English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5719002	A	19980217	US 1996-729225	19961009
	US 5866288	A	19990202	US 1997-966153	19971107
PRAI	US 1996-729225		19961009		
AB	A combination of <b>toners</b> comprises a cyan <b>toner</b> , a magenta <b>toner</b> , a yellow <b>toner</b> , a violet <b>toner</b> , and a black <b>toner</b> , each <b>toner</b> contg. a resin and a <b>pigment</b> . The <b>pigment</b> for each of the colored <b>toners</b> , which excludes black, can be prepd. by flushing a wet <b>pigment</b> cake with a <b>toner</b> resin and removing water to generate a <b>pigmented</b> resin.				
IC	ICM G03G009-09				
NCL	430137000				
CC	74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)				
ST	color electrophotog <b>toner</b> manuf <b>pigment</b> flushing				
IT	Carbon black, uses RL: TEM (Technical or engineered material use); USES (Uses) (color electrophotog. <b>toners</b> prepd. using)				
IT	Color electrophotographic <b>toners</b> (with enlarged color gamut and manufd. by <b>pigment</b> flushing process)				
IT	147-14-8, <b>Pigment</b> Blue 15:3 980-26-7, <b>Pigment</b> Red 122 989-38-8D, Rhodamine 6G, silicomolybdate salt <b>1325-82-2</b> , C.I. <b>Pigment</b> Violet 3 4531-49-1, <b>Pigment</b> Yellow 17 5281-04-9, <b>Pigment</b> Red 57:1 68310-07-6, <b>Pigment</b> Red 81:3 76199-85-4, <b>Pigment</b> Yellow 185 215247-95-3, <b>Pigment</b> Violet 23 RL: TEM (Technical or engineered material use); USES (Uses) (color electrophotog. <b>toners</b> prepd. by flushing wet <b>pigment</b> cakes contg.)				
IT	557-05-1, Zinc stearate 1344-28-1, Aluminum oxide, uses 13463-67-7, Titanium dioxide, uses 60842-32-2, Aerosil R972 RL: TEM (Technical or engineered material use); USES (Uses) (color electrophotog. <b>toners</b> prepd. using)				
IT	<b>1325-82-2</b> , C.I. <b>Pigment</b> Violet 3 RL: TEM (Technical or engineered material use); USES (Uses) (color electrophotog. <b>toners</b> prepd. by flushing wet <b>pigment</b> cakes contg.)				
RN	1325-82-2 HCAPLUS				
CN	C.I. Basic Violet 1, molybdatetungstatephosphate (9CI) (CA INDEX NAME)				

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L57 ANSWER 6 OF 15 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1998:38696 HCAPLUS

DN 128:147502

TI Energy beam-sensitive activator **composition** containing onium borate complex acid generator and base generator and curable, positively working, or imaging **composition** containing it

IN Toba, Taisei; Tanaka, Yasuhiro; Yasuike, Madoka

PA Toyo Ink Mfg. Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 53 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10007709	A2	19980113	JP 1996-162782	19960624
PRAI	JP 1996-162782		19960624		
OS	MARPAT 128:147502				

AB The activator **compn.** contains an energy beam-sensitive acid generator comprising a complex of an onium cation and a borate anion [BYmZn]- (Y = F, Cl; Z = Ph substituted with .gtoreq.2 electron-withdrawing groups selected from F, cyano, NO2, and CF3; m = 0-3; n = 1-4; m + n = 4), an energy beam-sensitive base generator, and optionally a sensitizer. The curable **compn.** contains the above activator **compn.**, an acid-curable compd., and a base-curable compd. The pos.-working **compn.** comprises the above acid generator **compn.** and a compd. changing affinity or soly. to a developer by an acid-catalyzed reaction. The imaging **compn.** comprises the above acid generator **compn.** and a **pigment** precursor which colors by reaction with an acid. The activator **compn.** is applicable for moldings, sealings, resists, **inks**, coatings, adhesives, dental fillings, printing plates, and holog. recording materials, etc. The acid generator shows improved sensitivity.

IC ICM C08F004-12

ICS C08G008-00; C08G012-00; C08G059-72; C08G063-08; C08G065-00; C08G069-20; C08G073-00; C08G075-00; C08G077-08; C08G085-00; G03F007-004; G03F007-029

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38, 42

ST onium borate complex photoacid generator catalyst; photochem catalyst onium borate acid generator; pos working curable **compn** photoacid generator; imaging photochem acid generator onium borate

IT **548-62-9**, Crystal Violet

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(colorant precursor; curable, pos.-working, or imaging compns. contg. onium borate complex energy beam-sensitive activator)

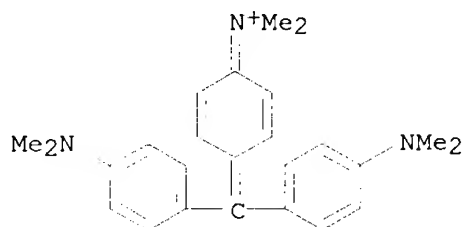
IT **548-62-9**, Crystal Violet

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(colorant precursor; curable, pos.-working, or imaging compns. contg. onium borate complex energy beam-sensitive activator)



RN 548-62-9 HCAPLUS  
 CN Methanaminium, N-[4-[bis[4-(dimethylamino)phenyl]methylene]-2,5-cyclohexadien-1-ylidene]-N-methyl-, chloride (9CI) (CA INDEX NAME)



● Cl<sup>-</sup>

L57 ANSWER 7 OF 15 HCAPLUS COPYRIGHT 2003 ACS on STN  
 AN 1998:25410 HCAPLUS  
 DN 128:128759  
 TI Radiation-sensitive acid generator **compositions**, curable **compositions**, positively working **compositions**, and image recording **compositions** thereof  
 IN Toba, Yasumasa; Tanaka, Yasuhiro; Yasuike, Madoka; Ichimura, Kunihiro  
 PA Toyo Ink Mfg. Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 51 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10001508	A2	19980106	JP 1996-155068	19960617
PRAI	JP 1996-155068		19960617		
OS	MARPAT 128:128759				

AB The acid generator compns. contain (A) radiation-sensitive acid generators comprising complexes of onium cations and borate anions [BYmZn]- (Y = F, Cl; Z = Ph which is substituted with .gtoreq.2 electron-accepting groups selected from F, CN, NO2, and CF3; m = 0-3; n = 1-4; m + n = 4), (B) agents which breed acids by reacting with the acids from A, and optionally (C) sensitizers. The pos.-working compns. are composed of the acid generator compns. and (D) acid-curable compds or (E) compds. which become more affinitive or sol. to developers by reactions using acidic catalysts. The image recording compns. are composed of the acid generator compds. and (F) **pigment** precursors which are colored by reacting with the generated acids. Application to moldings, sealings, resists, **inks**, coatings, adhesives, copying machines, and printers is indicated. Thus, an Al plate was coated with a **compn.** comprising dimethylphenacylsulfonium tetrakis(pentafluorophenyl)borate 3, p-MeC6H4O3SOCH2CMe(OCMe)CO2CMe3 3, and Bakelite ERL 4221 100 parts and exposed to UV to give a tack-free coating.

IC ICM C08F004-12  
 ICS C08G008-00; C08G012-00; C08G059-72; C08G063-08; C08G065-00;  
 C08G069-20; C08G073-00; C08G075-00; C08G077-08; C08G085-00;

G03F007-004; G03F007-029

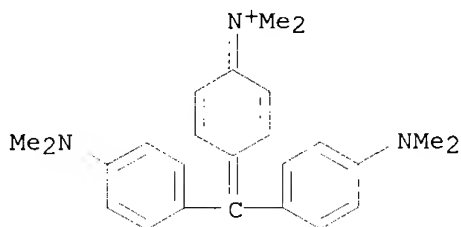
CC 37-6 (Plastics Manufacture and Processing)  
 Section cross-reference(s): 35, 38, 42, 67, 74

IT **548-62-9**, Crystal Violet  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (colorant precursor; radiation-sensitive catalyst compns. contg.  
 onium-borate complexes and promoters and their pos.-working and image  
 recording compns.)

IT **548-62-9**, Crystal Violet  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (colorant precursor; radiation-sensitive catalyst compns. contg.  
 onium-borate complexes and promoters and their pos.-working and image  
 recording compns.)

RN 548-62-9 HCAPLUS

CN Methanaminium, N-[4-[bis[4-(dimethylamino)phenyl]methylene]-2,5-  
 cyclohexadien-1-ylidene]-N-methyl-, chloride (9CI) (CA INDEX NAME)

● Cl<sup>-</sup>

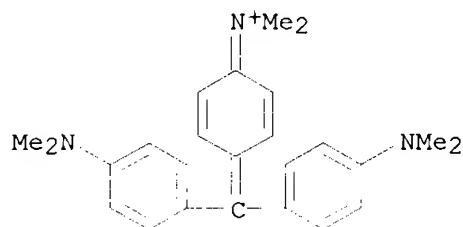
L57 ANSWER 8 OF 15 HCAPLUS COPYRIGHT 2003 ACS on STN  
 AN 1997:666037 HCAPLUS  
 DN 127:294772  
 TI Salicylic acid-based **ink compositions** and method and  
 tools for drawing rough sketches  
 IN Iijima, Zenshiro  
 PA Adger Kogyo K. K., Japan  
 SO Jpn. Kokai Tokkyo Koho, 6 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09263726	A2	19971007	JP 1996-99147	19960328
PRAI	JP 1996-99147		19960328		

AB **Ink** compns. for drawing rough sketches comprise salicylic acid  
 and/or acetylsalicylic acid, a **pigment** other than white, and  
 org. solvents. Thus salicylic acid 30, polyethylene oxide 0.8, and methyl  
 red 0.1 g were dissolved in the mixed solvent of iso-Pr alc. 80 mL and  
 ethylene chloride 20 mL to give an **ink compn.**, which  
 was used to make a pen having a tank contg. the **ink**. A piece of  
 thin paper was placed on top of an original drawing and the drawing was  
 traced by using the above pen to obtain a rough sketch on the thin paper.

The thin paper then was placed on top of a black cloth and a white cloth resp.; upon ironing, the rough sketch was left on the black cloth in white color and on white cloth in red color.

- IC ICM C09D011-02  
ICS D05C001-08
- CC 42-12 (Coatings, Inks, and Related Products)
- ST salicylic acid **ink** drawing rough sketch; acetylsalicylic acid **ink** drawing rough sketch
- IT **Inks**  
(salicylic acid-based **ink** compns. and method and tools for drawing rough sketches)
- IT Polyoxyalkylenes, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(salicylic acid-based **ink** compns. and method and tools for drawing rough sketches)
- IT 50-78-2, Acetylsalicylic acid 69-72-7, Salicylic acid, uses 493-52-7, Methyl red **548-62-9**, Crystal violet 25322-68-3, Polyethylene oxide  
RL: TEM (Technical or engineered material use); USES (Uses)  
(salicylic acid-based **ink** compns. and method and tools for drawing rough sketches)
- IT 67-63-0, Isopropyl alcohol, uses 107-06-2, Ethylene chloride, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(solvent; salicylic acid-based **ink** compns. and method and tools for drawing rough sketches)
- IT **548-62-9**, Crystal violet  
RL: TEM (Technical or engineered material use); USES (Uses)  
(salicylic acid-based **ink** compns. and method and tools for drawing rough sketches)
- RN 548-62-9 HCAPLUS
- CN Methanaminium, N-[4-[bis[4-(dimethylamino)phenyl]methylene]-2,5-cyclohexadien-1-ylidene]-N-methyl-, chloride (9CI) (CA INDEX NAME)



● Cl<sup>-</sup>

- L57 ANSWER 9 OF 15 HCAPLUS COPYRIGHT 2003 ACS on STN
- AN 1997:192100 HCAPLUS
- DN 126:187485
- TI Novel colorant modifiers, and stabilization of colorants therewith
- IN Nohr, Ronald Sinclair; MacDonald, John Gavin
- PA Kimberly-Clark Corporation, USA; Nohr, Ronald Sinclair; MacDonald, John Gavin
- SO PCT Int. Appl., 107 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 6

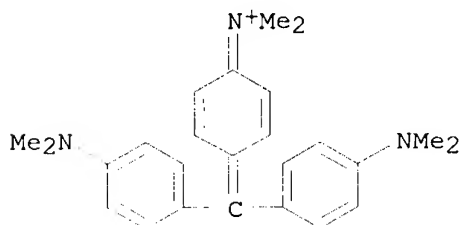
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9701605	A1	19970116	WO 1996-US4689	19960405
	W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI				
	RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN				
	ZA 9510849	A	19960702	ZA 1995-10849	19951220
	CA 2221565	AA	19970116	CA 1996-2221565	19960405
	AU 9655352	A1	19970130	AU 1996-55352	19960405
	EP 846146	A1	19980610	EP 1996-912579	19960405
	EP 846146	B1	20010926		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	BR 9609295	A	19990518	BR 1996-9295	19960405
	JP 2000506550	T2	20000530	JP 1997-504390	19960405
	AT 206150	E	20011015	AT 1996-912579	19960405
	ES 2161357	T3	20011201	ES 1996-912579	19960405
	CA 2219459	AA	19961212	CA 1996-2219459	19960603
	EP 830676	A1	19980325	EP 1996-917008	19960603
	EP 830676	B1	20010816		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	BR 9608388	A	19990511	BR 1996-8388	19960603
	JP 11507142	T2	19990622	JP 1996-501046	19960603
	AT 204403	E	20010915	AT 1996-917008	19960603
	ES 2159739	T3	20011016	ES 1996-917008	19960603
	US 6033465	A	20000307	US 1997-983159	19971229
	US 6342305	B1	20020129	US 1999-473839	19991228
PRAI	US 1995-570P	P	19950628		
	US 1993-119912	B2	19930910		
	US 1994-183683	B2	19940119		
	US 1994-258858	B2	19940613		
	US 1994-359670	B2	19941220		
	US 1994-360501	A	19941221		
	US 1995-373958	B2	19950117		
	US 1995-403240	B2	19950310		
	US 1995-461372	B2	19950605		
	US 1995-462103	A	19950605		
	WO 1996-US4689	W	19960405		
	WO 1996-US8445	W	19960603		
	US 1997-983159	A3	19971229		

OS MARPAT 126:187485

AB A light-stable colored **compn.** includes a colorant and a radiation transorber R1COCH:CHR2 [R1, R2 = H, alkyl, heterocyclyl, (un)substituted aryl; R1 or R2 = substituted aryl], which may be attached to a clathrating agent such as a cyclodextrin. The colorant, in the presence of the radiation transorber, is adapted, upon exposure of the transorber to specific, narrow-bandwidth radiation, to be mutable. The radiation transorber also imparts light stability to the colorant so that the colorant does not fade when exposed to visible light. Thus, PhCOMe was condensed with p-HO2CC6H4CHO and the product was converted to the acid

chloride and used to esterify hydroxyethyl .alpha.-cyclodextrin. The cyclodextrin ester stabilized Victoria Pure Blue BO against decolorization during irradiation with a Hg lamp.

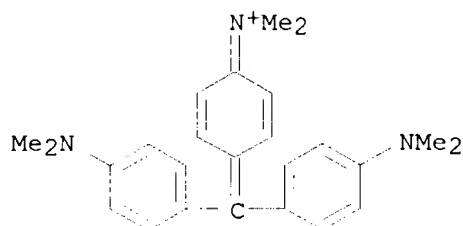
- IC ICM C09B067-00  
ICS C07C069-94; C07C069-773; C07C065-38
- CC 42-12 (Coatings, Inks, and Related Products)  
Section cross-reference(s): 37, 44
- IT **Inks**  
RL: POF (Polymer in formulation); USES (Uses)  
(jet-printing; **pigments** stabilized against photofading for)
- IT Epoxy resins, uses  
Polyoxyalkylenes, uses  
RL: POF (Polymer in formulation); USES (Uses)  
(**pigments** stabilized against photofading for)
- IT **548-62-9P**  
RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)  
(inclusion compds. with cyclodextrin ethers; photostabilization of colorants)
- IT 25068-38-6 25322-68-3  
RL: POF (Polymer in formulation); USES (Uses)  
(**pigments** stabilized against photofading for)
- IT **548-62-9P**  
RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)  
(inclusion compds. with cyclodextrin ethers; photostabilization of colorants)
- RN 548-62-9 HCAPLUS
- CN Methanaminium, N-[4-[bis[4-(dimethylamino)phenyl]methylene]-2,5-cyclohexadien-1-ylidene]-N-methyl-, chloride (9CI) (CA INDEX NAME)



● Cl<sup>-</sup>

- L57 ANSWER 10 OF 15 HCAPLUS COPYRIGHT 2003 ACS on STN
- AN 1995:503479 HCAPLUS
- DN 123:115730
- TI Ball-point pen **ink compositions** with good storage stability
- IN Nasukawa, Makoto; Takahashi, Hiroshi
- PA Pentel Kk, Japan
- SO Jpn. Kokai Tokkyo Koho, 5 pp.  
CODEN: JKXXAF
- DT Patent
- LA Japanese
- FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 07041721	A2	19950210	JP 1993-208354	19930730
PRAI	JP 1993-208354		19930730		
AB	The compns. contain coloring agents, solvents, and polyoxyethylene alkyl carboxymethyl ethers and/or their salts. Thus, C.I. Solvent Black 7 30.0, ethylene glycol monophenyl ether 30.0, benzyl alc. 10.0, polyoxyethylene tridecyl carboxymethyl ether Na salt 6.5, gum rosin 20.0, and poly(vinylpyrrolidone) 2.0 parts were mixed at 80.degree. for 4 h and filtered to give an <b>ink</b> with good storage stability.				
IC	ICM C09D011-18				
CC	42-12 (Coatings, Inks, and Related Products)				
ST	ballpoint pen <b>ink</b> polyoxyethylene ether				
IT	Carbon black, uses				
	RL: TEM (Technical or engineered material use); USES (Uses)				
	(pigments; ball-point pen <b>inks</b> contg.				
	polyoxyethylene alkyl carboxymethyl ethers with good storage stability)				
IT	<b>Inks</b>				
	(writing, ball-point pen <b>inks</b> contg. polyoxyethylene alkyl carboxymethyl ethers with good storage stability)				
IT	31800-53-0	33939-64-9	52004-32-7	53563-70-5	61757-59-3
	79869-64-0	100188-12-3			
	RL: MOA (Modifier or additive use); USES (Uses)				
	(ball-point pen <b>inks</b> contg. polyoxyethylene alkyl carboxymethyl ethers with good storage stability)				
IT	147-14-8, Phthalocyanine blue	509-34-2, C.I. Solvent Red 49			
	548-62-9, C.I. Basic Violet 3	1328-55-8, C.I. Solvent Blue 55			
	1934-21-0, C.I. Acid Yellow 23	5601-29-6, C.I. Solvent Yellow 21			
	8005-02-5, C.I. Solvent Black 7				
	RL: TEM (Technical or engineered material use); USES (Uses)				
	(pigments; ball-point pen <b>inks</b> contg.				
	polyoxyethylene alkyl carboxymethyl ethers with good storage stability)				
IT	57-55-6, Propylene glycol, uses	100-51-6, Benzyl alcohol, uses			
	122-99-6, Ethylene glycol monophenyl ether				
	RL: TEM (Technical or engineered material use); USES (Uses)				
	(solvents; ball-point pen <b>inks</b> contg. polyoxyethylene alkyl carboxymethyl ethers with good storage stability)				
IT	548-62-9, C.I. Basic Violet 3				
	RL: TEM (Technical or engineered material use); USES (Uses)				
	(pigments; ball-point pen <b>inks</b> contg.				
	polyoxyethylene alkyl carboxymethyl ethers with good storage stability)				
RN	548-62-9	HCAPLUS			
CN	Methanaminium, N-[4-[bis[4-(dimethylamino)phenyl]methylene]-2,5-cyclohexadien-1-ylidene]-N-methyl-, chloride (9CI) (CA INDEX NAME)				



L57 ANSWER 11 OF 15 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1992:162472 HCAPLUS

DN 116:162472

TI Electrophotographic **toner composition**

IN Kawasaki, Shoji; Hirayama, Nobuhiro; Uchiyama, Kenji; Sato, Hisatomo; Akiyama, Hiromi

PA Mitsui Toatsu Chemicals, Inc., Japan

SO PCT Int. Appl., 34 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9109348	A1	19910627	WO 1990-JP1652	19901219
	W: JP, KR, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE				
	EP 460225	A1	19911211	EP 1991-900918	19901219
	EP 460225	B1	19980610		
	R: DE, ES, FR, GB, NL, SE				
	ES 2118747	T3	19981001	ES 1991-900918	19901219
	US 5230978	A	19930727	US 1991-741537	19910814
PRAI	JP 1989-327274		19891219		
	WO 1990-JP1652		19901219		

AB An electrophotog. **toner compn.** comprises a polymer obtained by portionwise or continuous dropwise addn. of a soln. contg. a divinyl compd. 0.01-30, a solvent y, and a polymn. initiator 0.01-10 wt. parts to 100 wt. parts of an ethylenic monomer or a soln. of 100 wt. parts of an ethylenic monomer in x wt. parts of a solvent, wherein 20 .ltoreq. x + y .ltoreq. 200 or 20 .ltoreq. y .ltoreq. 200. This electrophotog. **toner** comprising a resin low in melt viscosity and high in strength provides a **toner** fixable with small heat quantity, has excellent strength, and thus is adaptable to a high speed copier requiring only a small amt. of heat for **toner** fixation.

IC ICM G03G009-087

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 35

ST electrophotog **toner** binder polymer; low melt viscosity polymer

IT Quaternary ammonium compounds, uses

RL: USES (Uses)

- (charge-adjusting agent, electrophotog. **toner** contg.)
- IT Epoxy resins, uses  
Paraffin waxes and Hydrocarbon waxes, uses  
Phenolic resins, uses  
Polyesters, uses  
Rosin  
RL: TEM (Technical or engineered material use); USES (Uses)  
(electrophotog. **toner** contg.)
- IT Carbon black, uses  
RL: USES (Uses)  
(**pigment**, electrophotog. **toner** contg.)
- IT Vinyl acetal polymers  
RL: TEM (Technical or engineered material use); USES (Uses)  
(butyrals, electrophotog. **toner** contg.)
- IT Fatty acids, compounds  
RL: USES (Uses)  
(metal salts, charge-adjusting agent, electrophotog. **toner** -contg.)
- IT Terpenes and Terpenoids, polymers  
RL: TEM (Technical or engineered material use); USES (Uses)  
(polymers, electrophotog. **toner** contg.)
- IT Electrophotographic developers  
(**toners**, contg. polymer binder with low melt viscosity, for high speed and small heat quantity copier)
- IT 8005-03-6, Nigrosine  
RL: USES (Uses)  
(charge-adjusting agent, electrophotog. **toner** contg.)
- IT 9002-86-2, Poly(vinyl chloride)  
RL: TEM (Technical or engineered material use); USES (Uses)  
(electrophotog. **toner** contg.)
- IT 79-06-1, Acrylamide, uses 79-10-7D, 2-Propenoic acid, esters 79-39-0, Methacrylamide 79-41-4, uses 79-41-4D, esters 97-90-5 107-13-1, Acrylonitrile, uses 110-17-8D, Fumaric acid, dialkyl esters 110-17-8D, Fumaric acid, mono ester 621-82-9, Cinnamic acid, uses 2274-11-5 25852-47-5 26570-48-9 77221-84-2  
RL: USES (Uses)  
(monomer, for manuf. of electrophotog. **toner** polymer binder)
- IT 91-22-5, Quinoline, uses 147-14-8, Phthalocyanine Blue 1309-38-2, Magnetite, uses 1314-13-2, Zinc oxide (ZnO), uses 1324-02-3 **1325-82-2** 1344-37-2, Chrome yellow 1345-16-0, Cobalt Blue 2512-29-0, Hansa Yellow G 5281-04-9, Brilliant Carmine 6B 5979-28-2, Permanent Yellow NCG 12656-85-8, Molybdenum Orange 13463-67-7, Titanium oxide, uses 16143-80-9, **Pigment** Green B 61725-50-6, Malachite Green Lake 67340-41-4, Fast Sky Blue 72413-00-4, Vulcan Orange 103370-46-3, Alkali Blue Lake  
RL: USES (Uses)  
(**pigment**, electrophotog. **toner** contg.)
- IT 60806-47-5P  
RL: PREP (Preparation)  
(prepn. of, as electrophotog. **toner** binder)
- IT 1309-37-1, Iron oxide, uses  
RL: USES (Uses)  
(red, **pigment**, electrophotog. **toner** contg.)
- IT 71-43-2, Benzene, uses 95-47-6, o-Xylene, uses 98-82-8, Cumene 100-41-4, Ethylbenzene, uses 106-42-3, uses 108-38-3, uses 108-88-3, Toluene, uses 1330-20-7, Xylene, uses  
RL: USES (Uses)  
(solvent, for manuf. of electrophotog. **toner** polymer binder)



IT 1325-82-2

RL: USES (Uses)

(pigment, electrophotog. toner contg.)

RN 1325-82-2 HCAPLUS

CN C.I. Basic Violet 1, molybdatetungstatephosphate (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

L57 ANSWER 12 OF 15 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1986:562201 HCAPLUS

DN 105:162201

TI Electrophotographic liquid developer

IN Tsubushi, Kazuo

PA Ricoh Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 5 pp.

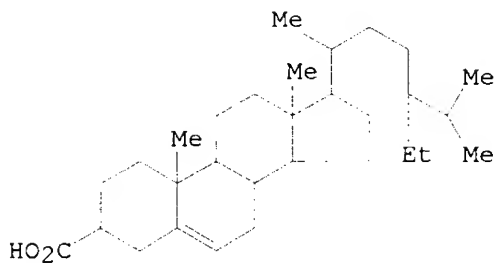
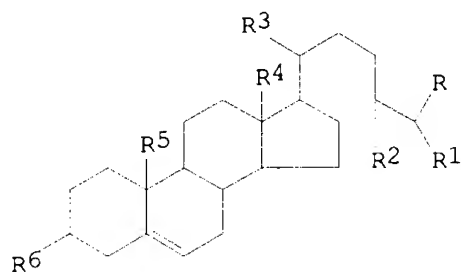
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 60221768	A2	19851106	JP 1984-77830	19840418
PRAI	JP 1984-77830		19840418		
GI					



AB The title developer contg. colorants and a polymer in an insulating, low-dielec. const. medium also contains a compd. having the general formula I (R to R5 = C1-20 alkyl; R6 = OH, CO2H). The addn. of I prevents deterioration of image sharpness and image d. Thus, a **compn.** contg. I 40, 3:2:1:4 2-ethylhexyl methacrylate-lauryl methacrylate-methacrylic acid-Me methacrylate copolymer 35, C black (Raven 1035) 12, methylene blue 2, and Isopar H 90 g was kneaded and added to 360 g Isopar

H. The dispersion 140 g was dild. with 1 L Isopar H to obtain an electrophotog. liq. developer. The developer gave well-defined images on paper having smoothness ranging from 10 s to 150 s, even though the addn. of I made the **toner** diam. larger.

IC ICM G03G009-12

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT Carbon black, uses and miscellaneous

RL: USES (Uses)

(liq. electrophotog. developer contg. **pigment** and copolymer and steroid compd. and, in insulating medium)

IT Steroids, uses and miscellaneous

RL: USES (Uses)

(liq. electrophotog. developers contg. **pigments** and polymer and, in insulating media)

IT Alkanes, uses and miscellaneous

RL: USES (Uses)

(C9-12-iso-, liq. electrophotog. developer contg. **pigments** and copolymer and steroid compd. in)

IT Photography, electro-, developers

(liq., contg. **pigments** and copolymer and steroid compd. in insulating medium)

IT 61-73-4 147-14-8 **548-62-9** 1328-53-6 68993-80-6

RL: USES (Uses)

(liq. electrophotog. developer contg. carbon black and copolymer and steroid compd. and, in insulating medium)

IT 60382-94-7 92881-18-0 92881-19-1

RL: USES (Uses)

(liq. electrophotog. developer contg. **pigments** and copolymer and steroid compd. and, in insulating medium)

IT 104432-61-3 104432-62-4 104432-63-5 104432-64-6 104432-65-7

104432-66-8 104446-18-6 104486-87-5

RL: USES (Uses)

(liq. electrophotog. developer contg. **pigments** and copolymer and, in insulating medium)

IT 56343-94-3 60163-90-8 92538-05-1 93884-33-4 99456-07-2

RL: USES (Uses)

(liq. electrophotog. developer contg. **pigments** and steroid compd. and, in insulating medium)

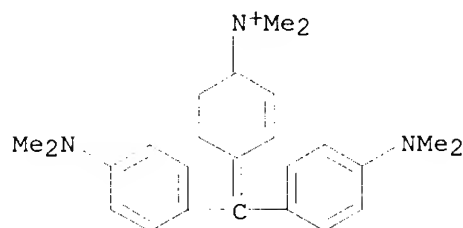
IT **548-62-9**

RL: USES (Uses)

(liq. electrophotog. developer contg. carbon black and copolymer and steroid compd. and, in insulating medium)

RN 548-62-9 HCAPLUS

CN Methanaminium, N-[4-[bis[4-(dimethylamino)phenyl]methylene]-2,5-cyclohexadien-1-ylidene]-N-methyl-, chloride (9CI) (CA INDEX NAME)



L57 ANSWER 13 OF 15 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1984:573254 HCAPLUS

DN 101:173254

TI **Ink composition** for ink jet printing

IN Bhatia, Yog R.

PA Dick, A. B., Co., USA

SO U.S., 5 pp.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4465800	A	19840814	US 1983-474173	19830310
	DE 3408706	A1	19840913	DE 1984-3408706	19840309
	DE 3408706	C2	19950105		
	GB 2137219	A1	19841003	GB 1984-6244	19840309
	GB 2137219	B2	19860924		
	JP 59202274	A2	19841116	JP 1984-45361	19840309
	JP 03021582	B4	19910325		
	CA 1207999	A1	19860722	CA 1984-449275	19840309
PRAI	US 1983-474173		19830310		

AB Jet printing **inks** contain a phenolic resole, a lower alkanol solvent, a **pigment** or sol. basic dye, HONH<sub>2</sub>.HCl (resistivity control agent), an evapn. retardant, and a modifying resin, preferably a butryal resin. Thus, 56.4 parts MeOH [67-56-1] and 24.0 parts 55% soln. of Bakelite BLS 2700 [9003-35-4] resole resin in EtOH [64-17-5] were mixed for 15 min, 10.0 parts ethylene glycol Et ether [110-80-5] and 906 parts Bakelite XYHL vinyl butyral resin were added, and the **compn** . was mixed for 15 min before adding 44 parts HONH<sub>2</sub>.HCl and 3.20 parts C.I. Basic Violet 3 [548-62-9]. The resulting resin had pH 5.2, sp. resistivity 570 .OMEGA.-cm, sp. gr. 8.8, viscosity 2.2 cP, and sonic velocity 1217 m/s.

IC C09D003-54; C09D003-56; C08L061-10

NCL 524236000

CC 42-12 (Coatings, Inks, and Related Products)

ST phenolic resole printing **ink**; jet printing **ink**;  
 alkanol solvent jet printing **ink**; methanol solvent jet printing **ink**;  
 ethanol solvent jet printing **ink**; evapn retardant  
 jet printing **ink**; glycol ether evapn retardant **ink**;  
 basic dye jet printing **ink**

IT Vinyl acetal polymers  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (butyrals, jet-printing **inks** contg.)

IT **Inks**  
 (jet-printing, phenolic resole-based, contg. lower alkanol solvents)

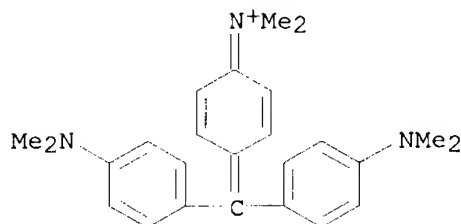
IT 110-80-5 111-90-0  
 RL: USES (Uses)  
 (evapn. retardants, jet-printing **inks** contg.)

IT 64-17-5, uses and miscellaneous 67-56-1, uses and miscellaneous  
 81-88-9 506-59-2 **548-62-9** 5470-11-1 9003-35-4  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (jet-printing **inks** contg.)

IT **548-62-9**  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (jet-printing **inks** contg.)

RN 548-62-9 HCAPLUS

CN Methanaminium, N-[4-[bis[4-(dimethylamino)phenyl]methylene]-2,5-cyclohexadien-1-ylidene]-N-methyl-, chloride (9CI) (CA INDEX NAME)



● Cl<sup>-</sup>

L57 ANSWER 14 OF 15 HCAPLUS COPYRIGHT 2003 ACS on STN  
 AN 1979:213201 HCAPLUS  
 DN 90:213201  
 TI Hybrid liquid **pigmentation** charges or **toners**  
 IN Kosel, George E.  
 PA Hunt, Philip A., Chemical Corp., USA  
 SO Fr. Demande, 85 pp.  
 CODEN: FRXXBL  
 DT Patent  
 LA French  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	FR 2369599	A1	19780526	FR 1976-32614	19761028
	FR 2369599	B1	19820521		
PRAI	FR 1976-32614		19761028		

AB Microfiche records of high quality are obtained by development of electrostatic images with a hybrid developer **compn.** comprised of a mixt. of a classical liq. developer (carbon black type, resistivity .apprx.109 .OMEGA.-cm) contg. a thermoplastic fixing agent and dispersant and a 2nd liq. developer contg. an amphipathic graft copolymer. A charge-orienting substance is also present in one of the above developers.

IC G03G009-12  
 CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic Processes)  
 IT Resin acids and Rosin acids  
 RL: USES (Uses)  
 (dimers, diisocyanates liq. developer **compn.** contg., for electrostatic image development in microfiche prodn.)

IT Rosin  
 RL: USES (Uses)  
 (hydrogenated, liq. developer **compn.** contg., for electrostatic image development in microfiche prodn.)

IT Carbon black, uses and miscellaneous  
 Coumarone-indene resins  
 Resin acids and Rosin acids  
 RL: USES (Uses)  
 (liq. developer **compn.** contg., for electrostatic image development in microfiche prodn.)

IT Electrography  
 (liq. developer mixt. **compn.** for, for microfiche prodn.)

IT Photography, electro-, developers  
 (color, liq., hybrid **compn.** as, for microfiche prodn.)

IT Resin acids and Rosin acids  
 RL: USES (Uses)  
 (esters with glycerol, liq. developer **compn.** contg., for electrostatic image development in microfiche prodn.)

IT Photography, electro-, developers  
 (liq., hybrid **compn.** as, for microfiche prodn.)

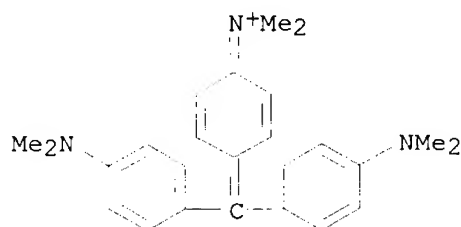
IT Castor oil  
 RL: USES (Uses)  
 (polymd., liq. developer **compn.** contg., for electrostatic image development in microfiche prodn.)

IT 81-88-9D, reaction product with amphipathic graft copolymer 509-34-2  
**548-62-9D**, reaction product with amphipathic graft copolymer  
 632-99-5D, reaction product with amphipathic graft copolymer 842-07-9D,  
 reaction product with amphipathic graft copolymer 1332-85-0D, reaction  
 product with amphipathic graft copolymer 1333-86-4D, reaction product  
 with amphipathic graft copolymer 2465-27-2D, reaction product with  
 amphipathic graft copolymer 6786-83-0D, reaction product with  
 amphipathic graft copolymer 10114-58-6D, reaction product with  
 amphipathic graft copolymer  
 RL: USES (Uses)  
 (liq. developer **compn.** contg., for electrostatic image development for microfiche prodn.)

IT 136-52-7 147-14-8 301-10-0 637-12-7 1306-24-7, uses and  
 miscellaneous 1333-86-4 6904-78-5 9086-93-5 11099-03-9  
 25038-32-8 51320-04-8 57029-31-9 62649-16-5 62715-07-5  
 69522-03-8  
 RL: USES (Uses)  
 (liq. developer **compn.** contg., for electrostatic image development in microfiche prodn.)

IT **548-62-9D**, reaction product with amphipathic graft copolymer  
 RL: USES (Uses)  
 (liq. developer **compn.** contg., for electrostatic image development for microfiche prodn.)

RN 548-62-9 HCAPLUS  
 CN Methanaminium, N-[4-(bis[4-(dimethylamino)phenyl]methylene)-2,5-cyclohexadien-1-ylidene]-N-methyl-, chloride (9CI) (CA INDEX NAME)

● Cl<sup>-</sup>

L57 ANSWER 15 OF 15 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1976:569689 HCAPLUS

DN 85:169689

TI Electrophotographic liquid developer **composition**

IN Yamashita, Hiroshi; Osawa, Sadao

PA Fuji Photo Film Co., Ltd., Japan

SO Ger. Offen., 29 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2537578	A1	19760304	DE 1975-2537578	19750822
	JP 51024233	A2	19760227	JP 1974-96194	19740823
PRAI	JP 1974-96194		19740823		

AB Electrophotog. liq. developers are described which consist of an elec. insulating carrier liq. and neg.-charged **toner** particles from a vinylcarbazole polymer or copolymer carrying an electron-withdrawing substituent with a Hammett const. of .apprx.0.01 to 0.8. The properties of these developers are not affected by the presence of small amts. of impurities and because of this, the developers are storage stable and can be readily reproduced. Thus, a soln. contg. brominated poly(vinylcarbazole) (1 bromine atom/monomer unit; mol. wt. of .apprx.300,000) 3, rhodamine 0.1, and CH<sub>2</sub>Cl<sub>2</sub> 100 g was dispersed in Isopar E 5 l. to give a ppt. This ppt. 2, Superbeckosol J 537 (saffron oil-modified alkyd resin) 20, and Isopar H 25 g were ball-milled for 35 hr to give a paste which was dild. 20 fold with Isopar H to give a liq. developer that when used with a photosensitive ZnO-contg. layer gave a clear and accurate reddish purple image with a max. reflection d. of 1.51 and a fog d. of 0.06. A portion of this developer which had been stored for 30 days at 20-30.degree. gave pos. images with essentially the same image quality.

IC G03G

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic Processes)

ST polyvinylcarbazole **toner** electrophotog liq developer

IT Carbon black, uses and miscellaneous

RL: USES (Uses)

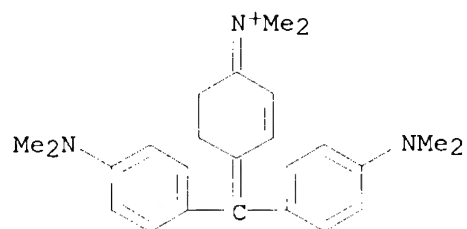
(acrylic polymer-modified, electrophotog. liq. developers contg.

**toners** from brominated poly(vinylcarbazole), polymers, and)

IT Photography, electro-

(liq. developers for, **toner** compns. contg.

- electron-withdrawing group-substituted poly(vinylcarbazole) polymer for)
- IT Alkyd resins  
RL: USES (Uses)  
(saffron oil-modified, electrophotog. liq. developers with **toners** contg. poly(vinylcarbazole) derivs., **pigments**, and)
- IT 9H-Carbazole, 9-ethenyl-, homopolymer, deriv.  
RL: USES (Uses)  
(electrophotog. liq. developers with **toners** from **pigments**, polymers, and)
- IT 2-Propenoic acid, polymers with carbon black and lauryl methacrylate  
RL: USES (Uses)  
(graft, electrophotog. liq. developers with **toners** from brominated poly(vinylcarbazole), polymers, and)
- IT 25719-52-2 28062-60-4  
RL: USES (Uses)  
(electrophotog. liq. developers contg. poly(vinylcarbazole) derivs., **pigments**, and)
- IT 76-03-9, uses and miscellaneous  
RL: USES (Uses)  
(electrophotog. liq. developers contg. **toners** from poly(vinylcarbazole) derivs., **pigments**, polymers, and)
- IT 60880-55-9  
RL: USES (Uses)  
(electrophotog. liq. developers from **toners** contg. poly(vinylcarbazole) derivs., **pigments**, and)
- IT 65-61-2 2945-96-2  
RL: USES (Uses)  
(electrophotog. liq. developers with **toners** from brominated poly(vinylcarbazole), acrylic acid-lauryl methacrylate polymer and)
- IT 147-14-8  
RL: USES (Uses)  
(electrophotog. liq. developers with **toners** from brominated poly(vinylcarbazole), acrylic polymer-modified carbon black, and)
- IT 509-72-8  
RL: USES (Uses)  
(electrophotog. liq. developers with **toners** from brominated poly(vinylcarbazole), polymers, and)
- IT 569-64-2 2475-46-9 6253-10-7 33270-70-1 60834-99-3  
RL: USES (Uses)  
(electrophotog. liq. developers with **toners** from chlorinated poly(vinylcarbazole), alkyd resin, and)
- IT **548-62-9**  
RL: USES (Uses)  
(electrophotog. liq. developers with **toners** from nitrated poly(vinylcarbazole), acrylic acid-lauryl methacrylate polymer, and)
- IT 128-80-3  
RL: USES (Uses)  
(electrophotog. liq. developers with **toners** from poly(vinylcarbazole) cyano derivs., polymers, and)
- IT **548-62-9**  
RL: USES (Uses)  
(electrophotog. liq. developers with **toners** from nitrated poly(vinylcarbazole), acrylic acid-lauryl methacrylate polymer, and)
- RN 548-62-9 HCAPLUS
- CN Methanaminium, N-[4-[bis[4-(dimethylamino)phenyl]methylene]-2,5-cyclohexadien-1-ylidene]-N-methyl-, chloride (9CI) (CA INDEX NAME)



●  $\text{Cl}^-$



	L #	Hits	Search Text	DBs	Time Stamp
1	L1	2548 9	gravure or rotogravure	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 11:15
2	L2	339	polymeric adj colorant	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 11:18
3	L3	0	2 near10 absorption near5 nm!	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 11:15
4	L4	3321	(chromophore or dye or colorant) near10 absorption near5 nm!	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 11:18
5	L5	274	1 and 4	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 12:54
6	L6	254	chromophore near10 absorption near5 nm!	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 11:19
7	L7	6	1 and 6	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 11:18
8	L9	2488 1	polymer\$2 near5 (chromophore or colorant or dye)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 11:19
9	L10	45	9 near10 absorption near5 nm!	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 11:20
10	L11	153	5 and ink	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 11:28

	L #	Hits	Search Text	DBs	Time Stamp
11	L12	2046	x adj2 "80" or x80	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 11:45
12	L13	50	1 and 12	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 11:38
13	L15	2	("5231135").PN.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 11:27
14	L16	0	15 and millijet	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 11:27
15	L17	0	15 and 12	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 11:27
16	L18	1	10 and ink	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 11:28
17	L19	35	1 near5 ink and absorption near5 nm!	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 12:57
18	L20	6	((("6444021") or ("5719002") or ("4465800"))).PN.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 11:31
19	L21	0	12 and 20	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 11:31
20	L22	20	reactint adj violet	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 12:00

	L #	Hits	Search Text	DBs	Time Stamp
21	L23	4	22 and 1	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 11:44
22	L24	27	12 and printing adj ink	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 11:46
23	L25	2464	(polyoxyalkylene or polyoxyethylene or polyoxypropylene) same (dye or chromophore)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 12:56
24	L26	169	1 and 25	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 11:53
25	L27	10	((("3157633") or ("4167510") or ("4284729") or ("4732570") or ("4507407"))).PN.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 12:46
26	L28	0	27 and absorption	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 11:54
27	L29	0	27 and nm!	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 11:54
28	L30	0	27 and wavelength	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 11:54
29	L31	80	25 and absorption near5 nm!	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 11:56
30	L32	604	1 and absorption near5 nm!	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 11:56

	L #	Hits	Search Text	DBs	Time Stamp
31	L34	78	32 and chromophore	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 11:56
32	L33	36	32 and (colored near5 (resin or polymer))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 11:57
33	L35	109	(33 34) and 1	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 11:57
34	L36	22	reactint adj2 violet	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 12:00
35	L37	2	36 not 22	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 12:01
36	L38	48	13 and solvent	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 12:02
37	L39	287	1 and maximum adj absorption	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 12:03
38	L40	132	1 and maximum adj absorption near10 (dye or chromophore or colorant)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 12:04
39	L41	1226	((523/160) or (523/161)).CCLS.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 12:04
40	L42	10	41 and maximum adj absorption	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 12:09

	L #	Hits	Search Text	DBs	Time Stamp
41	L43	3	wo-9701605-\$.did. or wo-9109348-\$.did.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 12:12
42	L44	8	jp-2001106712-\$.did. or jp-10007709-\$.did. or jp-10001508-\$.did. or jp-09263726-\$.did. or wo-2003192956-\$.did.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 12:14
43	L45	39	batlaw.in.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 12:13
44	L46	0	wo-3192956-\$.did.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 12:15
45	L47	3	polymeric adj violet adj colorant	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 12:22
46	L48	0	oxirane adj5 ether adj20 dicyanothiopene	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 12:22
47	L49	480	oxirane adj5 ether	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 12:22
48	L50	14	1 and 49	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 12:23
49	L51	1280 7	1 and ink	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 12:23
50	L53	3957 5	hue	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 12:24

	L #	Hits	Search Text	DBs	Time Stamp
51	L54	110	"l.sup.*"	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 12:40
52	L55	37	54 and 53	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 12:26
53	L56	2	55 and 1	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 12:27
54	L57	155	"a.sup.*"	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 12:28
55	L58	114	"b.sup.*"	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 12:28
56	L59	69	54 and 57 and 58	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 12:36
57	L60	3	1 and 59	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 12:29
58	L61	22	ink and 59	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 12:31
59	L62	4	54 and "h.sup.*"	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 12:36
60	L63	1545	1 and 9	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 12:32
61	L64	30	1 and 9	EPO; JPO; DERWENT	2003/09/ 08 12:33

	L #	Hits	Search Text	DBs	Time Stamp
62	L65	88	1 and toner	EPO; JPO; DERWENT	2003/09/ 08 12:35
63	L66	1881	1 and toner	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 12:35
64	L67	368	1 near5 ink and toner	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 12:35
65	L68	14	59 and toner	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 12:36
66	L69	11	54 and ("h.sup.*" or hue) and toner	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 12:38
67	L70	1682	1 and hue	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 12:38
68	L71	39	1 and hue	EPO; JPO; DERWENT	2003/09/ 08 12:38
69	L72	0	"1.sup.*"	USOCR	2003/09/ 08 12:40
70	L73	6	((("6086661") or ("5665504") or ("4812141"))).PN.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 12:40
71	L74	3	ch-638239-\$.did.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 12:43
72	L75	1545	1 and 9	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 12:44
73	L77	236	1 near5 ink and 9	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 12:44

	L #	Hits	Search Text	DBs	Time Stamp
74	L78	37	(polyoxyalkylene or polyoxyethylene or polyoxypropylene) and 77	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 12:45
75	L79	59	4284729.URPN.	USPAT	2003/09/ 08 12:46
76	L80	15	79 and 1	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 12:48
77	L81	2	("5062894").PN.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 12:48
78	L83	55	ink.ti. and 4	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 12:54
79	L84	806	(polyoxyalkylene or polyoxyethylene or polyoxypropylene) and 9 and ink	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 12:56
80	L85	245	(polyoxyalkylene or polyoxyethylene or polyoxypropylene) and 9 and ink.ti.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 12:56
81	L86	3	85 and absorption near5 nm!	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 08 12:57



	L #	Hits	Search Text	DBs	Time Stamp
1	L1	1001	reactint adj5 violet or x80 or x adj "80"	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 10:39
2	L2	1174 8	gravure and ink	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 10:39
3	L3	23	1 and 2	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 10:40
4	L4	14	toner near10 maximum adj absorption	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 10:42
5	L6	1	4 and ink	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 10:42
6	L7	9	polymer\$2 near3 (colorant or dye) near10 maximum adj absorption	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 10:56
7	L8	86	(colorant or dye) near10 maximum adj absorption and toner	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 11:06
8	L9	3551	magenta adj toner	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 10:46
9	L10	0	9 same chromophore	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 10:46
10	L11	2	9 and chromophore	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 10:49

	L #	Hits	Search Text	DBs	Time Stamp
11	L12	8	((("5231135") or ("5310887") or ("4812141") or ("5766268"))).PN.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 10:50
12	L13	0	12 and magenta	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 10:50
13	L14	0	violet near10 maximum adj absorption and toner	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 10:51
14	L15	23	violet near10 maximum adj absorption	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 10:50
15	L16	0	12 and maximum adj absorption and toner	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 11:01
16	L17	2015 2	colored near5 (polymer or resin) or polyoxyalkylene near5 colorant	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 10:52
17	L19	192	17 and maximum adj absorption	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 11:02
18	L20	539	polymer\$2 near3 (colorant or dye) and maximum adj absorption	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 10:57
19	L21	70	20 and chromophore	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 10:58
20	L22	185	polymer\$2 near3 (colorant or dye) and maximum adj absorbance	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 10:57

	L #	Hits	Search Text	DBs	Time Stamp
21	L23	45	22 and chromophore	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 10:58
22	L25	0	12 and maximum adj absorption	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 11:01
23	L24	1	12 and maximum adj absorbance	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 11:01
24	L26	11	(colorant or dye) near10 maximum adj absorbance and toner	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 11:02
25	L27	62	17 and maximum adj absorbance	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 11:04
26	L28	2	("6479647").PN.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 11:04
27	L30	0	29 and gravure	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 11:04
28	L29	2	28 and ink	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 11:04
29	FAM ILY	1	2003-352082.NRAN.	DERWENT	2003/09/ 09 11:05
30	L32	0	chromophore near10 maximum adj (absorption or absorbance) and toner	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 11:07
31	L33	44	chromophore near10 maximum adj (absorption or absorbance)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 11:08

	L #	Hits	Search Text	DBs	Time Stamp
32	L34 4249		((polyoxyalkylene or polyoxyethylene or polyoxypropylene or alkoxyated or ethoxylated or polyalkyleneoxy or polyethyleneoxy or polypropyleneoxy) same (dye or chromophore))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 11:58
33	L36 427	34	and magenta	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 11:08
34	L35 69	34	and maximum adj (absorption or absorbance)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 11:15
35	L37 312	36	and (ink or toner)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 11:12
36	L38 1056		((polyoxyalkylene or polyoxyethylene or polyoxypropylene or alkoxyated or ethoxylated or polyalkyleneoxy or polyethyleneoxy or polypropyleneoxy) near10 (dye or chromophore))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 11:57
37	L39 87	38	and magenta and (ink or toner)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 11:12
38	L40 188	2	and maximum adj (absorption or absorbance)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 11:22
39	L41 1281	2	and toner	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 11:22

	L #	Hits	Search Text	DBs	Time Stamp
40	L42	324	gravure near5 ink and toner	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 11:22
41	L43	530	toner and maximum adj (absorption or absorbance)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 11:38
42	L44	40	43 and chromophore	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 11:29
43	L45	2	("5886091").PN.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 11:29
44	L46	12	<div> <div>"3213058"</div> <div>"3928292"</div> <div>"4619990"</div> <div>"4820601"</div> <div>"4985528"</div> <div>"5194463"</div> </div> <div> <div>"3278486"</div> <div>"4284729"</div> <div>"4666819"</div> <div>"4831109"</div> <div>"5176745"</div> </div>	USPAT	2003/09/ 09 11:37
			"5389130").PN.		
45	L47	3	46 and (absorption or absorbance)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 11:43
46	L48	2	("5194463").PN.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 11:43
47	L49	1	48 and (absorption or absorbance)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 11:54
48	L50	2	("4284729").PN.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 11:54
49	L51	2	("4666819").PN.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 11:54

	L #	Hits	Search Text	DBs	Time Stamp
50	L52	2	51 and (absorption or absorbance)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 11:54
51	L53	0	(polyoxyalkylene or polyoxyethylene or polyoxypropylene or alkoxyated or ethoxyated or polyalkyleneoxy or polyethyleneoxy or polypropyleneoxy) and 52	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 11:58
52	L54	1056	((polyoxyalkylene or polyoxyethylene or polyoxypropylene or alkoxyated or ethoxyated or polyalkyleneoxy or polyethyleneoxy or polypropyleneoxy) near10 (dye or chromophore))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 11:59
53	L56	1474	(polyoxypropylene or polypropyleneoxy) near10 (majority or amount or number)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 12:01
54	L57	1	55 and 56	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 12:00
55	L58	25	(polyoxypropylene or polypropyleneoxy) and 55	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 12:00
56	L55	264	54 and ink	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 12:03
57	L59	13	55 and (eo! near3 po!)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 12:06

	L #	Hits	Search Text	DBs	Time Stamp
58	L60	2	("5176745").PN.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 12:05
59	L61	1	60 and eo! and po!	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 12:08
60	L62	14	55 and eo! and po!	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 12:08
61	L64	43	2 and 1 and hue adj angle	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 12:17
62	L67	4	ink and "l.sup.*" and hue adj angle	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 12:16
63	L68	0	ink and low near5 hue adj angle	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 12:16
64	L69	4	ink and "L.sup.*" and hue adj angle	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 12:16
65	L71	0	2 and "a.sub.*" and "b.sup.*"	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 12:16
66	L72	1	2 and cielab	EPO; JPO; DERWENT	2003/09/ 09 12:17
67	L73	51	2 and (lightness or brightness) and hue adj angle	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 12:17
68	L75	59	2 and ("l.sup.*" or "a.sub.*" or "b.sup.*" or hue adj angle or "h.sup.*")	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 12:23

	L #	Hits	Search Text	DBs	Time Stamp
69	L76	1	2 and 1 and "a.sup.*" and "b.sup.*"	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 12:35
70	L77	3	2 and "l.sup.*" and "a.sup.*" and "b.sup.*"	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 12:27
71	L78	22	ink and "l.sup.*" and "a.sup.*" and "b.sup.*"	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 12:28
72	L80	8	54 and ("l.sup.*" or "a.sup.*" or "b.sup.*" or hue adj angle or "h.sup.*")	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 12:31
73	L81	3	2 and "a.sup.*" and "b.sup.*"	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 12:30
74	L82	58	2 and (hue adj angle or "h.sup.*")	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 12:32
75	L83	1	2 and "L" and "a.sup.*" and "b.sup.*"	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 12:35
76	L84	2	("5886091").PN.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 12:35
77	L85	0	84 and "a.sup.*" and "b.sup.*"	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 12:35
78	L86	0	84 and "a.sup.*"	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 12:35



	L #	Hits	Search Text	DBs	Time Stamp
79	L87	0	84 and "b.sup.*"	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 12:36
80	L88	1	84 and spectrodensitometer	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 12:36
81	L89	1	84 and a*	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 12:36
82	L90	214	2 and a* and b*	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 12:36
83	L91	201	90 and (l! or l*)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 12:39
84	L92	6	91 and 54	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 12:37
85	L93	67	2 and (l! or l*) and (h* or hue adj angle)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 12:40
86	L94	2	93 and 54	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 12:40
87	L95	125	(91 or 93) and (toner or 54 or polymer\$4 near5 (colorant or dye))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 12:55
88	L96	129	2 and cielab	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 12:44

	L #	Hits	Search Text	DBs	Time Stamp
89	L97	7	96 and 54	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 12:44
90	L98	39	96 and toner	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 12:44
91	L99	29	2 and 54	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 12:57
92	L10 0	2	("5176745").PN.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 12:58
93	L10 1	27	99 and (pigment or dye)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/ 09 12:58